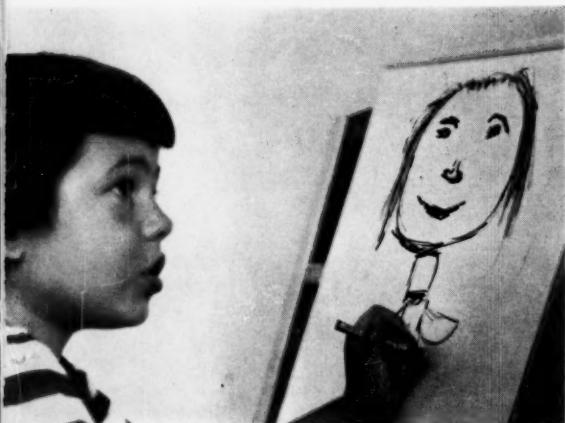


september/october 1954

Design



Marcia, 5 years old.



the creative art magazine

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Peter Hunt Desk

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The Peter Hunt chapter is just one of forty art and craft projects described in this creative art book. A favorite choice for thousands of schools, libraries, teachers and just plain hobbyists. Tells about the tools, materials and uses of such art media as: paper mache, textile paints, water color, pastels, batik, silk screen, helioprints—40 technics in all—many that every artist recognizes, some you've never heard of! To perk up your arts and crafts program, order this budget-minded, fully illustrated handbook.

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GOODBYE TO PAPER MACHE? On page 30 of this issue you will read about a fascinating new art medium which, for many purposes, makes that old standby, paper mache, obsolete. Called "Celastic", the specially treated fabric is moistened and then pressed against virtually any solid object, to dry shortly into an exact duplicate shell. The manufacturer, wants to acquaint readers with the potentialities of this highly recommended product and has prepared a low-cost sample kit which you may put to your most imaginative test. For full details see his advertisement elsewhere in the magazine. Design Magazine has put Celastic through its paces and recommends it for school and commercial use.

TREASURE PACKAGE OF RARE MATERIALS: You are undoubtedly familiar with the articles on gemcraft that Greenwich Villager, Sam Kramer, has written for Design. This bearded gentleman runs a most unusual business; he collects and sells rare natural materials like African buffalo horn, tropic woods, stag horn crown, elephant ivory and lignum vitae. Would you like a tantalizing potpourri of these and other imported items? You can carve them, caress them, make them into exciting handcraft gifts. Simply write to Mr. Kramer at Dept. "D", 29 W. 8th St., N. Y. 11 and, for \$5.00 he'll ship you a generous assortment of rare finds collected from every corner of the globe.

WASHINGTON REPORT CARD: U. S. Commissioner of Education, Samuel Brownell recently released the unhappy statistics. As of the 1st of this year, the United States had a shortage of 340,000 classrooms, a school drop-out rate of almost 50% and needed at least 72,000 more elementary level teachers.

HOW DOES YOUR SALARY COMPARE: The median salary for an elementary teacher in New York State (generally considered the highest range in the country outside of NYC itself) is now \$3,737 per year, and for secondary level teachers, \$4,032. Highest median salary is from New York City, where secondary teachers averaged \$4,627.

FREE GIFT TO ART TEACHERS: The Binney & Smith Co. offers you a 32-page book filled with practical ideas on creating and planning gifts, games and other art-minded items. Sure to spice your classroom sessions. Ask for: "Creative Crafts With Crayola," and write to: The Studio of Binney & Smith Co., 380 Madison Ave., N.Y. 17, N.Y.

NEW AID FOR ADVERTISING ARTISTS: Commercial artists, typographers and editors will welcome the just-developed "Type Calculator", a handy set of charts with a patented types-selector wheel which instantly shows how various type faces and headlines will fit into available spacing. Makes mathematical juggling of figures obsolete. Can be ordered for \$2.95. Contact: Casgel Service, 493 Foch Blvd., Mincola, N. Y.

FINGER PAINTING NEW? Just in case our readers think that the art of finger painting, which has enjoyed so widespread a popularity among school children and hobbyists, is a recent innovation, we would like to call to their attention that a 17th Century Chinese artist named K'ao Ch'i-p'ei created many beautiful pictures in this medium, and he too was a newcomer. The actual inventor of the technique may well be Chang Tsao, who smeared paint on silk in the 8th Century! Anyone know of an earlier accredited date for this line of work?

please turn to page 4

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continued from page 3

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"FREE & LOW COST ART MATERIALS" SOURCEBOOK: Readers who would like to have a handy booklet listing sources of supply for over 200 different art materials, may order a copy directly from the Secretary of Eastern Arts Ass'n., State Teachers College, Kutztown, Pa. Among the 33 classifications are the products of firms specializing in materials for architecture, art history, costume design, handcrafts, silk screening, watercolor, marionettes, and many others. Enclose 35c per copy when ordering.

ENTER THE 18th CERAMIC NATIONAL: The Syracuse Museum, joint-sponsor with Ferro Corp. and Onondaga Pottery Co., again invites Design readers to submit their best work in pottery, ceramic sculpture and enamels for a chance at the \$2,600 in prizes to be awarded this fall. Entries are due in your nearest regional center (see below) no later than September 11th. Entry fee: \$3.00. Send your work to one of following: School of Boston Museum of Fine Arts; Cleveland Museum of Art; Los Angeles County Art Inst.; Georgia Museum of Art, Athens; Syracuse Museum; Royal Ontario Museum, Toronto. Prize-winners will appear in a winter issue of Design Magazine.

TEACHING JOBS OPEN: Would you like to teach in New York's Westchester County? We are advised that a number of jobs are available within 50 miles of Manhattan. Contact: Mitchell Vincent, Director; Teachers Placement Bureau, Meadow Way, Irvington-on-Hudson, N.Y. . . For Long Island openings write: Long Island Teachers Agency, 280 Main St., Farmingdale, N.Y. . . For New England positions, contact: Northeast Teachers Agency, Box 603, Burlington 2, Vt.

FILMS AVAILABLE: A new, large source of educational films is the Film Library of the American Museum of Natural History, 79th St. & Central Park West, N.Y. 24, N.Y. Included are: Coronet Films, March of Time, McGraw Hill Text Series, Encyclopedia Britannica and many others. Rental fee is modest, covers shipping, insurance. Large selection of art and allied subjects. Send for free catalog to above address, describing your specific needs.

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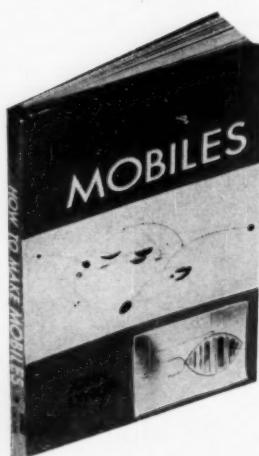
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COLOR TIPS FOR GRAPHICS

make color work for you
by understanding its peculiarities

WHAT color combinations make you stop and look? What color combinations make reading easy? The effect of colors in combination, whether for instant appeal or sustained attention, depends on known factors of legibility, according to experts of the color research laboratory at Sun Chemical Corp.

The perfect eye-catching color is yellow, experiments show. Combined with black it provides the most legible of all color combinations and, for that reason, is used on highway signs. It retains its superiority in poster and package use where instant legibility is important.

Next in order are green on white, red on white, blue on white, white on blue. Where signs, posters or packages are to be viewed in normal light, dark characters on a light background are best. Where impact is not important and where prolonged attention is given to the printed word—in books and magazines, for example—black on white is the best of all combinations. In brilliant light, black on ivory, or cream, may be desirable. Bright colors, for the most part, should be avoided in order to get away from distressing eye-images which cause eye strain. ▲

WHAT causes colors to vary in "size" and "distance" from the eyes? Because the focus of the human eye is not the same for all colors, the hues of the spectrum appear near or far, large or small. Red, for example, focuses normally at a point behind the retina. To see clearly the lens of the eye grows fat (convex), pulling the color nearer and thus giving it apparently larger size. Conversely, blue is focused normally at a point in front of the retina, causing the lens to flatten out and push the color back. That is why blue is sometimes referred to as a "receding" color, and red is called an "advancing" color.

Red, orange, and yellow usually form a sharp and clear image on the retina—even through distance and haze—while blue and violet tend to appear blurred. Yellow is apparently the "largest" color, then next in order are white, red, green, blue, with black the smallest of all colors.

A bright image also tends to "spread out" over the retina, just as a drop of water will creep over the fibers of blotting paper. Thus, bright colors appear large, and warm colors appear near. These phenomena have practical application in posters and product packages. Bigness is to be accentuated through the use of light, warm colors.

Elements in design meant to stand out prominently should be red, orange, and yellow—and preferably to be set off against greenish, bluish, or purplish backgrounds of low value. ▲



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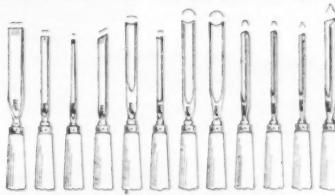
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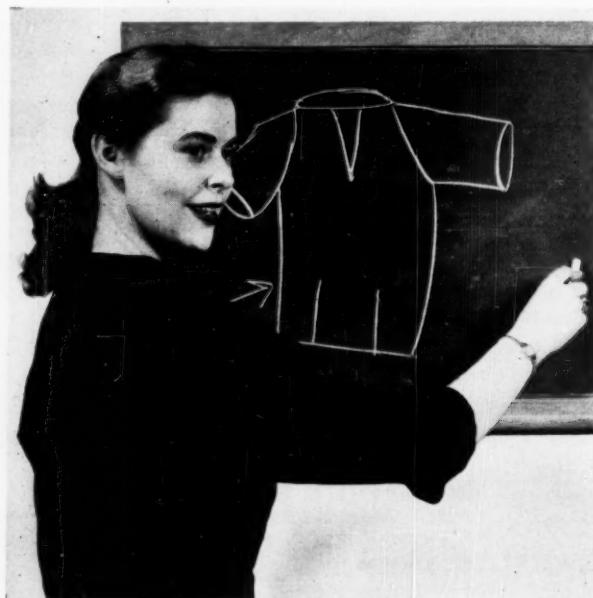
THE old-fashioned blackboard has taken on new glamor—both in appearance and ability. Today, it is called a "chalkboard", for in addition to the familiar black, these visual aids now come in glare-reducing green and other subdued colors. By following a few simple rules, you will get the most out of this important "visible voice."

Is yours a good chalkboard? Its marking and erasing quality must be equal to that of slate. If colored, the shade must be dark enough to permit high contrast with any standard chalk. Use white, yellow and pink chalks for the most effective carrying power, other colors for shading and drawing of details. Never wash a board until it has been properly cleaned first. Use the best quality chalks, which are free of grit; cheap chalks leave ghost marks and scratch or pit the surface. With chalks so moderate in price, it is poor economy to save pennies on the medium and have to replace the board in a short time. A good board never needs resurfacing.

Chalk particles do one of three things—float, drop or stick. Beware of the kinds that stick.

Chalkboards are invaluable to the grade teacher who would hold a student's interest. They are widely used for lectures which require technical explanations, as in cooking school and sewing classes, and have lately become most popular over TV for these purposes as well as on humor shows.

Hygieia Chalks are among the most widely accepted variety for schooroom use; they are grit free. Gritty chalk bases tend to fill in the pores of the board, making it gray and shiny. Use this handy tool as often as possible in your class-room work. Few teachers are fortunate enough to have the diction and voice range to retain interest over long periods without some dramatic prop. Talking with chalk is one happy solution. ▲



INTRICATE DETAILS are easier to visualize when they are graphically shown on a chalkboard.



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COVER: Readers of this magazine are familiar with the spot cuts and headings of Ralph Owen, who also created our signature. We must now ask him to move over so that his daughter, Marcia, may make her initial appearance on our front cover. This makes our new "discovery" perhaps the youngest cover artist in the business. That's Marcia you see, busy concentrating on the task of illustrating our 56th Anniversary frontpiece. ▲

the creative art magazine

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Ronald Press

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A beautifully executed book on the most popular of handicrafts. Concentrating mostly on the textile techniques of primitive peoples, the text is a treasure house of information. Coverage: card weaving; inkle looms; twined and braided methods; plaiting. Contains a variety of actual projects in making belts, girdles, festive headbands and woven costumes, based on methods of Egypt, Scandinavia, South American Indians, Africa. Illustrated diagrams and color plates. 128 pages text.

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DELUXE edition. Vital information for the graphic artist who plans newspaper, magazine and promotional advertising. See article, page 14 this issue, based on book contents.

"Our Pick as Commercial Art Book-of-the-Month."
Design Magazine

The Ronald Press, Publisher

"BY-WAYS in HAND-WEAVING"

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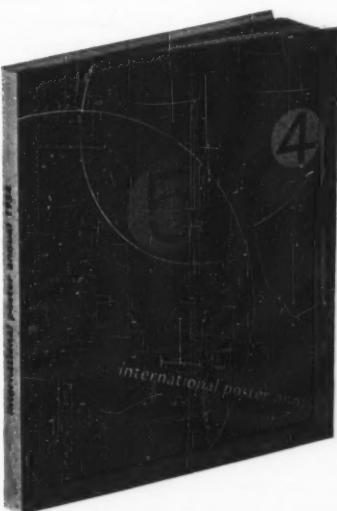
WORKING methods in the creation of beautifully handwoven garments and accessories, based on techniques of historic peoples from Scandinavia, China, Guatemala, Peru, Egypt, and other sources. A thoughtful gift for those who practice the most popular of handicrafts. Fully illustrated, with full-color plates.



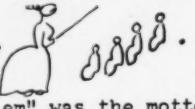
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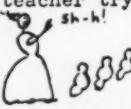
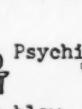
500 Prize Posters for Ideas and Inspiration
See Special Article, Page 34, This Issue

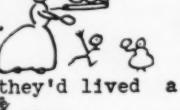


DISCIPLINE

The kids a hundred years ago were taught their tasks by rule. 

"We lick 'em and we larn 'em" was the motto of the school.  The dreary path to knowledge for young 'uns, smart or dumb,  was emphasized at either end of their curriculum. 

But should the teacher try today a mild reproof or two  psychologists writhe in dismay and twenty parents sue. 

 Psychiatry and guidance have banished every blow.  But sometimes teachers wish they'd lived a hundred years ago. 

Frederick J. Moffitt, New York State Education Department.
Reprinted by permission

PAINTER'S CORNER

How do I mix wax and color for encaustic painting?

▲ The increasingly popular renaissance of encaustic (hot wax) painting makes this information of general appeal, so here's a recipe that is not dissimilar to that used 2,000 years ago by the Greeks and Romans.

Dissolve one ounce of beeswax in six tablespoons of turpentine and pour this into a jar or can. Add to this about forty ounces of heated linseed oil. When this is thoroughly blended, add your powder of pigment to color the encaustic mixture and heat it again. Keep it hot (in a porcelain container, or on a small electric burner) while painting with the encaustic.

Is it safe to reuse a canvas or board?

▲ There's no reason why can't paint over an old picture, if you prepare the surface properly. First, sandpaper away any raised blobs of dried pigment and make the surface smooth. Then put on a ground of lead white (or a tint). You may mix clay that has been ground in linseed oil with this lead white if you wish a still better ground over which to paint. If you do this better first put a coating of retouch varnish over the old painting, so the clay & white lead mixture will stick. ▲

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Ben Walters, Inc.

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The Eternal Source

by L. W. ROCHOWANSKI



SIXTY-ONE years ago, Franz Cizek arrived in Vienna as a young art student. His career marks a revolution in art education for children and must be given the credit it deserves.

Cizek's enthusiastic devotion to painting found little encouragement and support in the academies where sterile copying and imitative artistic expression prevailed. Only in his modest little apartment did his work flourish. There, the children of the carpenter with whom he lived, admired his creations and soon they begged him to permit them to paint with him. That was how it all started. Soon they were scribbling with old pencils on pieces of wrapping paper, on the floor in a long corridor. And this was work, serious and devoted self-expression, not mere play. Cizek himself, a carefully trained and sensitive observer particularly interested in the sources of man's urge to create, took detailed notes on the children's activities, on their progress and their interests. And he discerned three fundamental forces expressive of organic growth in the child: he found the urge to create, the urge to arrange or impose order, and the urge to reproduce or portray. If these three develop and express themselves jointly, the child can develop into a real artist and a full human being. Yet in many children the creative urge is not strong, or it is misunderstood. If it is suppressed by prescriptive education, minor urges come to take precedence over the major creative impulse. The result is, that while creative work ceases, the ordering, rhythmical sense decays into a tendency toward mere mechanical arrangement, and the reproductive urge manifests itself in empty imitation. At this point existence ceases to be creative and the child's actions become meaningless, disorderly, and destructive.

On the basis of this view of the structure of creative activity, Cizek saw clearly the futility of all rigid points of view, systems and standards of judgment that

do not take the child's individual needs into consideration. Therefore he demanded that the child be left free to develop its own imaginative view of the world. Its growth in the earliest years is the most important contribution to the child's full and healthy creative development into an individual human being. While Cizek met with violent opposition from all teachers and academicians in the established schools, the minister of education, an intelligent, discerning man, recognized his gifts and silenced the unproductive critical spirits by appointing him as the first reformer of education in Austria. The result was a fundamental revision of all educational principles. Imitative work was replaced by creative work, copying by individual composition, prescribed subjects and materials by free choice of theme and media. And the generation that Cizek brought up entered the world prepared to meet all of life creatively and to solve individual problems personally, responsibly, and knowingly. For Cizek was interested not only in training painters-to-be, but in educating children toward full human activity.

Very soon other countries adopted Cizek's point of view and our modern attitude toward education is largely based on his original work, just as its influence is clearly evident in modern art. He is finally being recognized as the initial force of a world-wide movement and at last a monograph on his work is being prepared.

In a post-war period of uncertainty and instability, let us remember Cizek's emphasis on organic and individual growth, on creative activity, and let us not forget that, by permitting the child to make art its highest medium of constructive self-expression, the child finds a permanently useful outlet for its energies. It will be able, therefore, to continue to work and develop its own vision and observation of the world, instead of disintegrating during adolescence and becoming a useless and destructive member of society. For Cizek's be-

please turn to page 42

Courtesy of "EVERYDAY ART".



Photos by Rudolph Schaad

How far is far enough in guiding a young artist's first efforts? Here is advice for the elementary teacher, from an expert.

Creative growth in child art

by VIKTOR LOWENFELD

CREATIVE growth starts as soon as the child begins to document himself. He may do it by "inventing" babbling noises, sounds which he produces, or he may do it later by inventing his own concepts for "man," "house," or "mountain." It is his concept, his invention which makes it a creation. Creative growth is intimately bound up with the self. It manifests itself in the independent and original approach the child shows in his work. Children who have been inhibited in their creativity by dogmata, rules, or forces resort to copying or tracing methods. They easily adopt styles of others as a sign of lost confidence in their own original power to create.

Most of the decisive trends in human development are formed in early childhood. Most care is, therefore, needed in developing the child's free individual expression right at the early stages. Let us look at what happens to a child who begins with his first attempts at self expression. Let us try to understand a scribbling child who thoroughly enjoys his motions with his arms and the resulting marks on the paper. We know how much babies are affected by motions—motions which are done with them, or motions in which they actively participate. We all know the calming influence which rocking has upon the baby. One day the child may pick up a crayon and for the first time actively engage himself in enjoying his motions on the paper. The child's basic human experience, the child's need is then nothing but to enjoy his body movements. This, however, is a very important need, for through it the child establishes freedom in his motor activities.

The marks on the paper which result from this uncoordinated activity are necessarily uncontrolled. At some point, however, the child will discover that there is an interdependence between his motions and the lines on the paper. This is a great discovery for the child and from this time on his need changes. For good art motivation, it is necessary that the teach-

er identifies himself with the activity of the child. I think I have a very good way of making you relive the experience the child now goes through. The child at this stage of his scribbling does not continuously focus his eyes on the things which he sees.

If you would like to go through the experience of how the child for the first time discovers the correlation between his motions and the marks on the paper, try to scribble crosseyed. While your crosseyed condition excludes a thinking in terms of a visual imagery, you concentrate more on your sense of Kinaesthesia. Just this way you may re-experience the uncontrolled movements which are characteristic for this first stage of scribbling. If you, for some seconds, interrupt your crosseyed condition while you scribble and focus now and then at a line which you draw, then you go through the same feeling of a first visual discovery of this causal interdependence between motion and visual recognition of the line. Always when we want to reassure ourselves that an achievement has not been accidental, we repeat the performance. So does the child. Reassuring himself that he can control his motions and coordinate them at will, he repeats from this time on the same type of motions over and over, again and again. Through such repetition he gains confidence in his own activity and his feelings for mastery.

Gaining confidence, as well as the feeling for mastery, are two basic human experiences which, when neglected, may result in serious emotional disturbances. If we then do not recognize this particular human need during this important stage of development, we may hinder the child in his proper growth. For instance, if we would ask such a scribbling child, who is concerned with achieving his motor coordination, "Can't you draw an apple?" the child, for whom it is inconceivable to relate reality or visual imagery to his motions, would first look at you and would then say, "You draw it." If you then go further with your interference and draw the apple for the child, either directly or by handing him color books, you will have interrupted one of the most basic areas in human experience. You then have interfered with the child's desire for achieving motor coordination; you have interfered with his striving for mastery, and finally you have shaken his self-confidence. From this you will understand that an interference with the creative production of the child does not remain in the realm of creativity. An interference in motor coordination may result in any other type of motor disturbance, such as stammering, while lack of confidence in regard to one task will reflect upon the child's attitude in other tasks.

If the child has gone through the experiences of mastering his motions properly, he will be ready for one of the most important experiences in human development. Peculiarly enough,

Adopted from "Art Today"—Elementary Edition, Catholic University of America Press, \$2.75

neither psychologists nor educators have given recognition to this basic experience. This, however, can be easily understood for there is nothing spectacular about it. I am referring to the fundamental experience of a child giving for the first time meaning to his scribbling. The child, while scribbling, may point at his scribbling by saying, "This is a choo-choo train." If I had to point out the two most important stages in human development, I would say they are the *Naming of Scribbling*, and the *Crisis of Adolescence*. Both affect decisively our imaginative thinking. What is so fundamental about the fact that Johnny calls his scribbling a "train" or "daddy," etc.? Up to this time Johnny was only concerned with following his motions on the paper. From now on his thinking refers for the first time to something outside of him. Thus his thinking has changed from a mere Kinaesthetic thinking, a thinking in terms of motions to an imaginative thinking, a thinking in terms of pictures. This, however, has great implications. It goes without saying that almost our entire creative thinking refers to some type of imagery and that for this reason alone this change must be considered a most decisive one. Yet, not only our creative thinking but all our thinking is influenced by our reference to imagery and especially our memory consists mainly of associative images. If we remember something we usually refer in our mind to memory images. "When I played near the brook by father's house." This memory would be without meaning if no mental picture would be referred to it. It then becomes easily understandable why our memory cannot refer back beyond the stage of "Naming of Scribbling."

From now on the child relates his thinking more and more to his doing until one day he discovers that he can establish a relationship between his drawing and reality. "My daddy has a head and big legs," "My drawing has a head and big legs; therefore my drawing is daddy." The relationship has been established. Yet, this relationship will change continuously according to the needs of the child. It must, however, be understood that the needs of the child during this stage of development are expressed in this newly won relationship between his drawing and his imagery and, therefore, every correction which refers to form and shape or proportions would only interfere with the child's intentions. Obviously in creative expression the word "correct" should only be used in relationship to the child's needs. Evaluations, therefore, in creative expression should always be in direct relationship to the child's intention for expression.

It is obvious that this newly won relationship between the child's drawing and reality will vary from individual to individual according to the motivating power the experience has upon the child and according to personality characteristics. The child sees the world differently from the way he draws it. Even a very young child knows that a man is more than a head with legs and arms attached to it; he knows that a man has features, a body, hands, and fingers. In his representations, however, the child expresses only what is actively important to him during the process of creating. In his drawing only what actively motivated the child can be seen. This is of decisive significance for the teacher because it permits her to record how far the child has proceeded in the grasp of himself and his environment. A knowledge of what actively motivated the child further reveals to the educator the emotional significance which the represented objects have for the child. Those things, however, which the child knows but omits in his drawings, are apparently without significance to him or have not yet come to his consciousness. We, too, possess these two types of knowledges: the one which we know and use, the other which we know but do not use. Perhaps we can best understand this difference in knowledge in the field of language education. Our daily vocabulary is a rather limited one. Most of us do not use more than 5000 words. Yet we can understand and enjoy reading the great works of Shakespeare who uses maybe more than three times as many words as we use in our everyday language. A good language education certainly should stimulate the individual to increase his vocabulary, to

use words actively which hitherto were not used. His expression then would become enriched and more fluid.

The same holds true for art education. On a visit into a first grade classroom, I found that these particular children established a rather poor relationship between themselves and their drawing. Figures were drawn rather superficially with the usual dots for eyes, strokes for nose and mouth. Purposely I had a bag of candy in my pocket. After rattling the bag I asked the children "What do I have in my pocket?" "Candy," was the answer. "Do you think it is hard or chewy?" Then I placed some candy on each child's desk and asked them not to put it in their mouths until a given signal. "Now you may crush the candy in order to find out how hard it is." Of course, all the children bit the candy into pieces. After we had gone through this experience, I asked the children to draw "eating the candy." Almost every child in the classroom included the "teeth" in his drawing. That showed clearly that this individual experience actively motivated the child to enrich his representation. Of course, all children will have been affected differently by such a motivation. A few of the children will have incorporated this new experience permanently into their "vocabulary." Some of them may use it associatively, whenever an occasion arises. Many will return to their former type of representation as if no experience had ever affected them. Yet, continuous motivation by means of actual experiences or intense classroom discussions will enrich the child's expression, and thus provide for greater flexibility and easier adjustments.

We are too much inclined to please ourselves by fostering the type of art expression which has an "aesthetic" appeal to us adults. By so doing we forget one of the most important functions of art education—to help the child in his growth. For the child, art is not the same as it is for the adult. Art, for the child, is an important means of expression. Since, as we have seen, the child's needs are different from those of adults, his expression must also be different. Out of this discrepancy between the adult's "taste" and the way in which the child expresses himself arise most of the difficulties and interferences in art teaching. I have seen and heard teachers intrigued by the "beauty" of children's drawings and paintings, asking for the "right" proportions and "good" color schemes. If the child does not develop the urge for "right" proportions and "good" color schemes, we have no right to impose them upon the child. Such an imposition would only have the opposite effect from what we expect. As long as the child is not ready to use his visual experiences with awareness, the emphasis on visual data would only interfere with the child's freedom of expression.

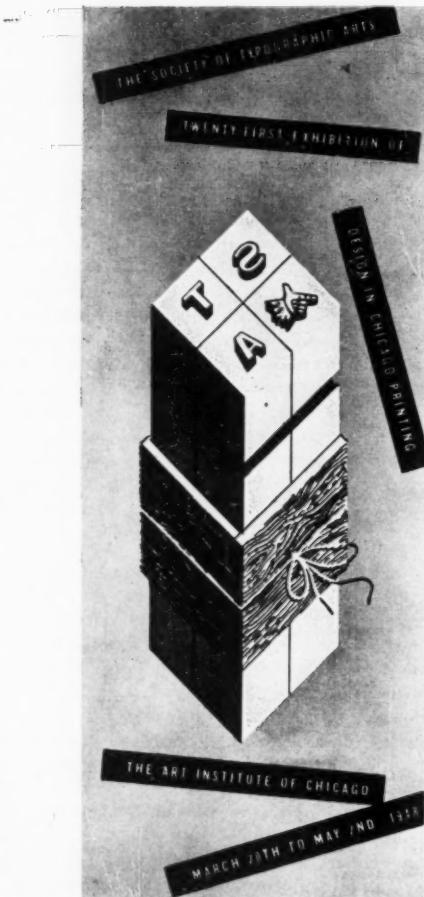
As the child establishes a closer and closer relationship to himself in his creative work, he discovers himself a part of an ever-growing environment. In the beginning his conscious relationships with the outside world are almost non-existent. Everything is centered around the self. There are things which are more significant to Johnny, and others less. The ones which are important are expressed in his drawings big, and others small. His proportions in his paintings are proportions of value. How wrong would it be to interfere with such proportions. We would in the truest sense deprive them of their "value." When Johnny draws his room he will include everything which is important to him. "In my room there is my train; in my room there is my bed; in my room there is my window." Nothing is related to one another. There is no need for it. The mere existence of the objects which have significance for Johnny is all that he cares for. In his drawing, therefore, no spatial correlation is attempted; the train may be big, everything else small. As he grows he becomes more and more conscious of being a part of the environment until one day he will express this consciousness as a visible sign by placing everything he draws in some spatial relationship. As an indication of this awareness, almost without exception children place everything they draw on a base line. Johnny now thinks,

TYPOGRAPHY and LETTERING

their meaning to the advertising artist

adapted from "Advertising Layout", a publication of the Ronald Press

by WILLIAM LONGYEAR



THE type selected for use in an advertisement can be of great importance in complementing the atmosphere of the layout as indicated by illustration, headline and copy, as well as the product being advertised. Since type has definite characteristics in the many various faces, a good visualizer at an agency must know type faces thoroughly enough to select the one fitting his layout. He is the creator and best understands the atmosphere of the advertisement he is placing before the reader.

All the principles of good layout are applicable to the type in an advertisement. Balance is certainly a necessity; the copy blocks must hang together well (unity); movement should be indicated by the established habit of left-to-right flow of words; and clarity and simplicity are surely required to encourage the reader to complete reading the message.

length of lines in columns

Exhaustive reader research has proved that type lines of certain length will read better than others. The average reader is unable to carry beyond a certain point the thought expressed in the words. If the lines are too long, he may lose the sense of what the copy says. The maximum number of characters in a type line for advertising is usually restricted to 78 characters—three alphabets in length. (The minimum number is one alphabet in length—26 characters.) Actually, 35 to 55 characters will give excellent reading qualities. In type a "character" is any one letter, punctuation mark or space between words.

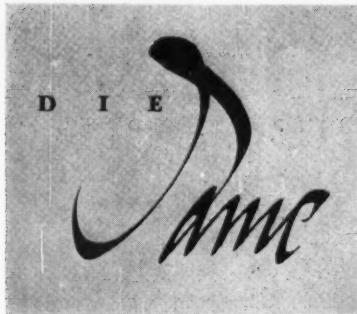
classes of type

Types fall into two broad classes: serifs, which have short, thin horizontal strokes at the end of all letters; and sans-serif types, or gothics, which have no serifs at all. Another difference in these two general groups is that the serif types are usually made up of thick and thin strokes, while most of the sans-serif types carry one thickness throughout each letter. Much variety is possible—there are over two thousand type faces in existence, not counting the oriental!

Type is customarily designed in two styles in every face: the vertical upright (known as "roman") and the italic, or slanted style.

how type is measured and sized

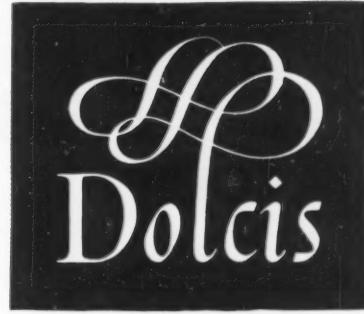
Type is measured and sized by the point system. A point is $1/72$ nd of an inch. There are twelve points in a pica (a special linear measurement used by typographers, about $1/6"), and $5\frac{1}{2}$ points per agate line, a unit of measurement in newspaper space advertising. When type designers carve a new set of type characters, the point system is used to determine the$



HERMANN BENTELE



WALTER KACH



REYNOLDS STONE

different sizes, such as 6-point, 10-point and so on. Some newspaper gothic sizes (for ads and headlines) may go as high as 140-points. The visualizer at an advertising agency selects the size of type desired by referring to the point size.

Another common term in typesetting is "lead", which designates the thin strips of lead that separate the lines to make them more legible. (The type face sticks up above them and the leading thus does not print.) Leads are also measured in points and are molded in thicknesses from $\frac{1}{2}$ point to a full pica. To measure type space the visualizer who prepares the advertisement uses an agate and pica rule, which can be bought at any good art store.

the question of legibility—

For greater legibility the importance of placing enough 'air'—that is, leading, between lines of type cannot be stressed too much. The amount of leading will call for nice judgment, since too much makes the lines fall apart unless the type is surrounded by a large area of white space.

In designing booklets, folders and any other material which contains long copy, type legibility is as important as any illustrative elements. These layouts will also call for selection of legible type faces, the best of which are based on traditional Roman, similar to the type used on this page. Readers are accustomed to this style in newspapers and magazines which they see daily.

In long copy not broken up by illustrations or design, it is advisable to make use of boldface subheads to break the

monotony caused by stretches of uninterrupted type. A word of caution: in any layout avoid using too many kinds of type; usually two or three are all you need for variety and contrast, and these should always complement each other. Use tricks sparingly, and make your type function as a unit of design. After all, it should be treated to form a harmonious whole in the layout, not calling attention to itself so much as what it says.

hand lettering and design

Hand lettering in a headline will often add to the attention value, because the lettering will be distinct from the type. Hand lettering can also impart a personal quality and definiteness to an advertisement—such as light, airy lettering for fashion subjects, bold lettering for dramatic copy, etc. Hand lettering also allows for a better fit in designing a layout, since it is not limited in height, width or any similar factor which must necessarily be considered with regular typeface.

The expert lettering men in this country are usually also great craftsmen in hand-drawn design, since these two arts go hand in hand. These designs are also created to fit an advertisement, much as a "spot cut" is used as an element of design in laying out an editorial page for a magazine.

The choice of type and hand-created lettering does a lot to an advertisement. It sets its tone, imparts or detracts interest and dates the layout. Its wise selection is an art in itself. ▲

hans



a collection of his paintings

CONTRAST is clearly defined by this imaginative combining of free-brush hand lettering and formal Didot typeface. The two styles counter each other admirably.



Beaver board props and intricate cutouts are safely sawed with an electric Cutawl tool.

Budget-wise Theater Sets

by GARNET LEADER

Art Instructor, Phillips High School, Birmingham, Ala.

MANY schools, using draperies only in stage productions, think that painted scenery is too expensive an item for their budget. A bit of cooperative ingenuity can solve this problem.

There is nothing supernatural about stage designing. It is an interesting form of fine and graphic art, allowing full play for student participation. As a subject, it is simple enough to be taught even to children.

The instructor begins by discussing the central idea of the play or program. Key colors are selected, to harmonize with the theme. Plan the lines that conform with the mood of the play—then set to work and make sketches or drawings, or better yet, a small scale stage model.

In setting the scene you must choose one that will interpret the author's idea, and this setting must be an emotional stimulus to the actors as well. Scenery is a subtle background for a play, never a distraction.

Because commercial scenery is quite expensive and the average school does not have the funds for such expense, the obvious solution is to have your students make the necessary flats and backdrop. These will last many years and can be redesigned and repainted for various performances. They will prove more satisfactory than draperies, and if carefully planned and executed, will by no means prove a needless expense. Armed with a working plan, some wood and heavy

domestic sheeting, flats can be successfully built and stretched. Consult your library for books on play production. (As a former student of Milton Smith, eminent New York producer and teacher, I recommended his "Book of Play Production", published by Appleton-Century Crofts Co. It is a complete and detailed analysis of every phase of play production—an excellent guide for high schools or amateur theatrical groups.)

If you have frames of an old set of flats, restretch them with new heavy domestic sheeting. Last year, we restretched a set of flats for about a tenth of the cost of a new set. The effort consumed several days, but the experience was immeasurable and so fascinating that we, like Tom Sawyer painting the fence, had plenty of eager, unsolicited assistance. The school custodian happened into the art room, and from then on spent every minute he could spare from his duties giving the class a hand in stretching and tacking the sheeting. The speech classes were given permission to work with us, and the school stage crew took personal pride in adding their assistance after school. Among our sidewalk superintendents we spotted the school principal.

The Art department does all the staging for Phillips High, which means designing and making scenery for a minimum of ten annual events—two senior class plays, two class day programs, one major program or musical for the Music department, assembly programs for United Nations Day, Thanksgiving, Christmas, and Easter, and a May Day program. Speech and Music departments turn over all staging to the art department, along with sketchy ideas of what is desired. We take it from there. We read their scripts, familiarize ourselves with the theme, make sketches and floor plans,

please turn to page 42



BACKGROUND PROPS were cut out of plastic sheets and painted for Phillips High School senior class play.



CLASS PLAY during performance shows use to which art and craft student talent was put.

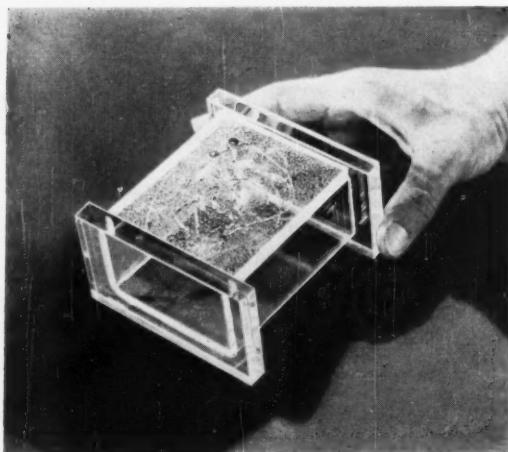
PROJECTS IN PLEXIGLAS

plastic medium allows full use of
the craftsman's imagination . . .

from "The Plexiglas Craftsman's Handbook"
distributed by Thomas Y. Crowell Co. (\$1.50)

PLEXIGLAS is an acrylic plastic that can be seen through, comes in many brilliant colors and thicknesses and is a wonderful medium for the creative craftsman.

When Plexiglas is clear, it is as transparent as the finest optical glass. When subtleties of tone and appearance are desired, the material is available in translucent form. Plexiglas can be decorated by etching, lamination of other materials to its surface and by painting. Tools will drill neat holes through it, and when heated, the material can be shaped by hand. Altogether a most versatile medium.



PLEXIGLAS CIGARETTE BOX and many other handsome items can be made with technique described.

For shaping by heat, the required temperature is about 325° F., at which point the plastic softens. This can be done in any kitchen oven.

On these facing pages we have reproduced a representative project, showing how easily Plexiglas can be adapted for shop and home studio purposes. The making of a cigarette box (or one for holding sewing materials, playing cards, etc.) will give the reader confidence in his ability to handle this relatively new art medium. Here's how the box on page 28 was made:

MATERIALS NEEDED

- 2 pieces 2"x4"x.375" clear Plexiglas (for sides)
- 1 piece 4"x6"x.250" clear (for center section)
- 2 pieces 3"x4"x.125" clear (for laminated lid)
- 2 pieces $\frac{1}{4}'' \times \frac{1}{4}'' \times .125''$ clear (lid stops).

TOOLS

Saw, scraper, cement tray, strip heater, weight, vise, ruler & pencil, laminating tools, small brush.

SUPPLIES

Laminating compound, ethylene dichloride cement, brads, buffering compound, emery compound, flannel cloth, laminating supplies.

FIRST STEP Scrape, sand and buff the two 4 inch edges of the .250 inch center section. Scrape and sand but do not buff the 6 inch edges of this piece because a polished surface is more difficult to cement. Remove masking paper from this piece and pencil mark one of the long edges at 1½ inches from each end. Place the Plexiglas with these marks over the heating element of the strip heater, heat and form to right angles so that the piece is "U" shaped as shown in Figure No. 1. Nearly any table edge can be used as a form to make the right angle bends. Lay this piece aside temporarily.

SECOND STEP Now scrape, sand and buff all edges of the two .375 inch sections until a good finish is obtained. Remove masking paper and mark the locations of cemented joints with a china marking pencil; allow for recessing of the lid between the side pieces. Study Figure No. 2 for proper joint location. Lay end pieces aside.

THIRD STEP Place a few brads in the cementing tray and rest one end of the .250 inch center piece on the brads. Pour just enough ethylene dichloride cement into the tray to contact the edge of the piece (see Figure No. 1). A shiny edge on the immersed edge indicates that the cement is making uniform contact. Allow the edge to rest in the cement about 2½ minutes, lift it out, tap off any excessive cement and locate immediately on the unmasked side piece, aligning it with the marking provided for this purpose (see Figure No. 2). Place a weight on the piece to force bubbles out of the cemented joint. After this joint has set for about five minutes, soak the opposite edge and follow the same procedure as shown in Figures No. 3, 4 and 5. Now your cigarette box needs only a lid.

FOURTH STEP For the lid, follow these laminating directions. Pour a thin, even layer of laminating compound on the Plexiglas piece that is to be the top of the lid. Keep cement away from edges. Spread with palette knife to within $\frac{1}{8}$ " of edges. Quickly turn over and press against second layer of lid, which has been decorated with metal bits. Use a mixture of two or three of the metallic bronze powders with a few small pieces of thin gauge brass or copper cut to geometric shapes and

please turn to page 40

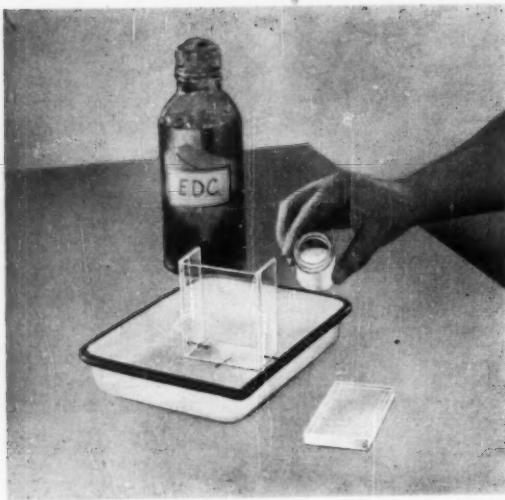


Figure 1

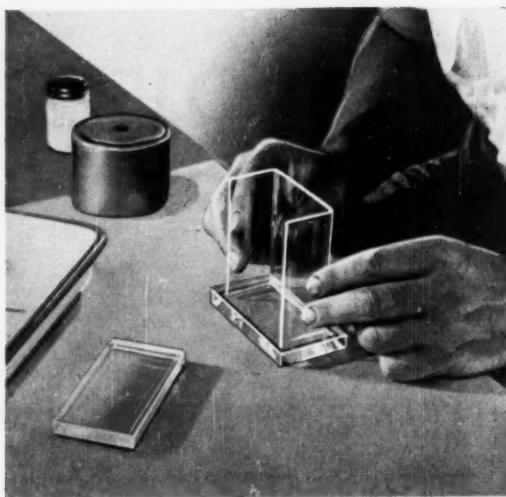


Figure 2

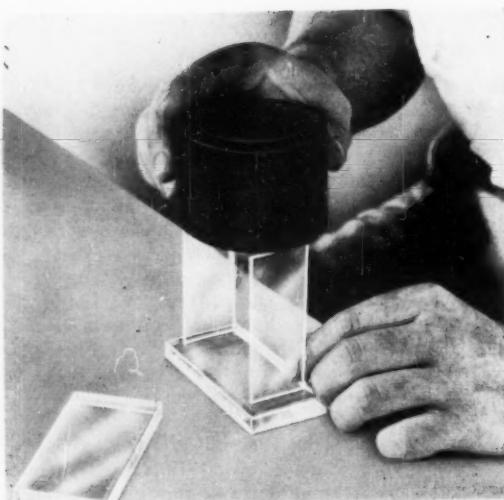


Figure 3

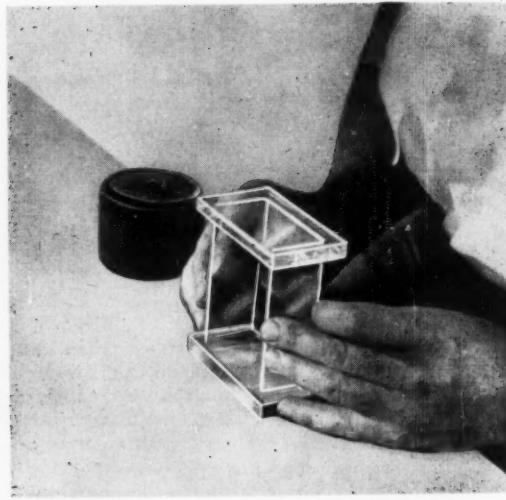


Figure 4

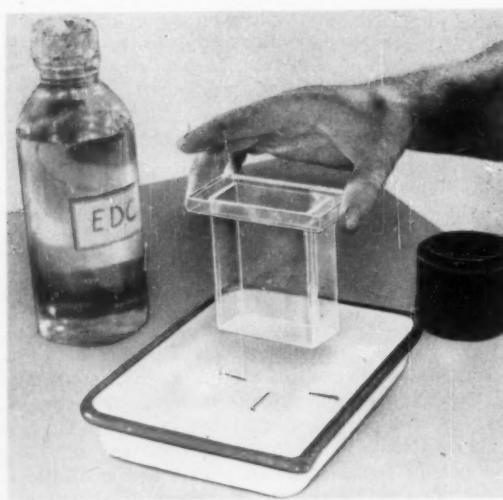


Figure 5

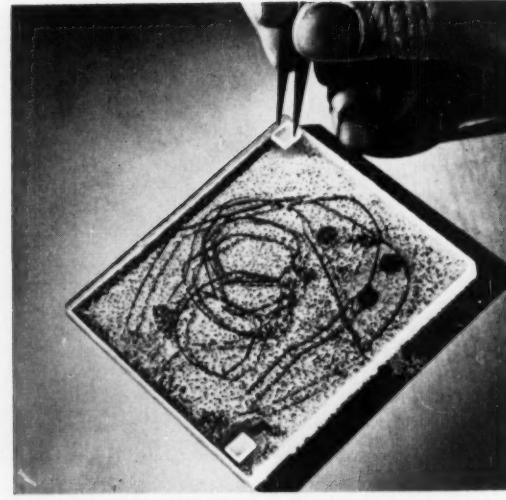


Figure 6

Witch Doctors in Art Education

by PAUL LUNDQUIST, M.A.

ARERE you a word witch doctor? Beware of the educator and artist who speak in Pedagogic Mumbo-Jumbo! This is a newly developed tongue lovingly created by those who have little or nothing to say and like to say it professionally.

This sort of thing has been going on for centuries, producing what Henshaw Ward once described as: "the most repellent prose known to man." Among artists it is used to give "meaning" to incompetent art; among educators it is donned whenever somebody is looking for attention or a raise. Although no statistics are currently available, it may be ranked ahead of heart disease as the scourge of mankind.

A well-known art educator recently saw fit to mouth this gem in print:

"The contemporary foci of endeavor is now gravitating toward a polar philosophy of art education which is opposed to shallow practicality . . ."

As far as we're able to figure it all out, this boils down to: "Today's art educator seeks more than the "how to do it" approach in what he teaches . . ." Not a bad idea, perhaps, but not especially new either. More important, whatever the author intended to say was lost in the maelstrom of his vocal windstorm. The best thing that could be done to this word-butcher would be to physically impose upon him a circumorbital haematoma*.

Many of my readers are teachers. Are you teaching or pontificating? Are your verbal arrows shooting 'way over the heads of your students? Come on down to earth, professor. What we need today is the sort of educator who will do more explaining by *doing* and less by parroting the senseless oratory of other art pontiffs. We recommend to all such a session with Stuart Chase's fast-moving book: "*The Power of Words*" (Harcourt-Brace & Co., 1954; \$3.95.) Mr. Chase offers the following sample of writing by yet another educator:

"Realization has grown that the curriculum or the experiences of learners change and improve only as those who are most directly involved examine their goals, improve their understandings and increase their skill in performing the tasks necessary to reach newly defined goals. This places the focus upon the teacher, lay citizen and learner as partners in curricular improvement and as the individuals who must change, if there is to be curriculum change."

* Black eye.

English translation: "If we are going to change the curriculum, teacher, parent and student must all help."

Now, on the other side of the picture, we have the practicing artist. Perhaps he has weathered a gale of the above-described pedagogy and emerged, groggy, but with a few whiffs of wind still in his sails. It suddenly dawns on him that most of his student time was spent listening to an instructor expound second-hand theories of philosophic art education. If he has been brash enough to inquire why the class isn't doing much actual painting of life as it is, or sculpturing of people as they really look, he is apt to be silenced with the observation: "We must feed a student's mind as well as his hands. There must be purpose behind art education." This has the ring of what, at first, seems like validity, but, when translated, comes out a half-truth, hiding behind the mask of the Philosopher. Theory has its place and doing has its place. Pure theory is the dilettante's delight, but nobody has ever hung a theory in the Louvre Museum. A well-rounded art program will allow students to draw and paint in whatever vein they wish to pursue without trammeling them with the "deeper significances."

This writer believes, after several years of teaching art, that the term: "philosophy of education" is being vastly overworked. Teachers of art should know how to paint and sculpt. Teachers of art should know how to guide others in actual doing and not take refuge behind pat phrases. Some teachers answer questions about art evasively when they do not know the facts and procedures. They never say, "I don't know". They are loath to admit their ignorance, although ignorance is no crime. So, instead, they create a sort of Fifth Amendment of art: "*No teacher may be called upon to incriminate himself by giving a direct answer.*" This accounts for the abusive overuse of such art cliches as: *plasticity, integration, and fluidity of line.*

Educators who take refresher courses only in art theoretics, actually need a plain and simple refresher course in creating art with a brush, palette knife and chisel.

This abysmal lack of valid art training is one reason why there are so many inept practicing artists. They find people even more artistically ignorant than themselves to sponsor their one-man exhibitions; they go off on wild, aimless tangents, presently secure in the knowledge that if the work is abstracted enough, who is to say it is badly done?

The New Instructor Faces Reality



a politic approach to problems of the neophyte college teacher

by CARL HOLTY

WHEN the young art graduate reports to a college for an interview, he is shown around and gets a general idea of the place the art department occupies in the larger organization of the college or university, but his impressions will be sketchy. They will crystallize only after he has started teaching.

Many of his problems will be the same encountered by first year instructors in art the country over—indeed, instructors in any subject. The most immediate problems will arise from the particular position, program and attitude of the department with which he will be associated.

Art departments are relatively new undertakings at most

Carl Robert Holty is one of America's most outspoken art teachers and exhibiting artists, currently on tour in the south and midwest in a series of lectures arranged by the Association of American Colleges. In addition to serving as Artist-in-residence at the Universities of Georgia and Florida, he has been a Visiting Professor at the University of California, Corcoran Gallery School and at the Art Student's League of New York. His lectures have been held at many leading colleges and institutes throughout the country.

American colleges. Their positions can occasionally be anomalous and their actual status indefinite. The question of whether the department is included in a school of liberal arts, a college of art and architecture, an art-music-drama division or, perhaps best (but rarest!) exists as an independent department, will have a great bearing on his professional activities.

Most of the art departments today are in the College of Liberal Arts. The original reason for placing them there was to provide a deeper understanding of the role of the Fine Arts in society in general, and in our own form of democratic society in particular. The fact that painting, drawing and the actual teaching of craft work was added to art history and art appreciation is based largely upon John Dewey's premise that "one learns most by doing." Nevertheless, the practical aspects by which today's college must function and the demand of the students for "practical" knowledge have caused a considerable deviation from the original idea. So, along with the above-mentioned principle which most college educators still stoutly affirm, purely practical courses (ranging from commercial art and interior decoration to dress designing and sewing) have been added, and the enrollment in these is usually the largest in the art department. There is no point in passing judgment on this contradiction here, but a contradiction it is, and certainly the old college teachers have a point to argue.

The enterprising department head must maintain friendly relations with older departments in the school who might be apprehensive of a growing rival institution within the college. As a teacher—and thus by necessity a politician—bear in mind that not all your college superiors are convinced of the value of an art department, let alone a growing one purveying "skills" rather than pure "learning." Because of this, the young instructor might find himself spending long hours after his classes supervising or actually executing exhibits, posters, displays and even stage sets as good will gestures toward fellow departments.

Occasionally these can be turned to good account by their inclusion as practical problems in various courses, but they are often simply an outright gift of time and effort by you, in the interest of cooperation—a gift it is rarely possible for the recipient to return in kind, even were he so inclined. Facts are facts, and the new instructor might just as well face them.

An instructor's plan for the year's work must be extraordinarily flexible for the first several years he tackles the job, since he will face situations impossible to foresee. If is useless to make sweeping, pin-pointed plans; you may end up trying to adapt precepts which would be perfectly valid for a department with a large enrollment, to smaller and more intimate class situations. Or you may, in smaller colleges, be asked to teach courses only distantly related to your major field—even in subjects for which you feel less than fully prepared.

Your work will almost certainly embrace a survey course in art appreciation or art history and your success in enlivening such a course will depend to a large extent on your personality and own digging, as textbook literature for such courses is meagre. This may bring you into conflict with the opinions of art historians lecturing on the same subjects in other departments, especially in humanities courses. The natural discord

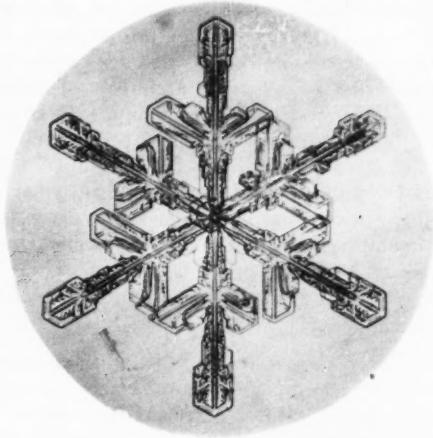
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Frozen art



Photographs by Professor Ukichiro Nakaya of Hokkaido University, Japan. Reproduced from "Snow Crystals", published by Harvard University Press. (\$10.00)

snow crystals are captured by the eye of a scientist's inquiring camera

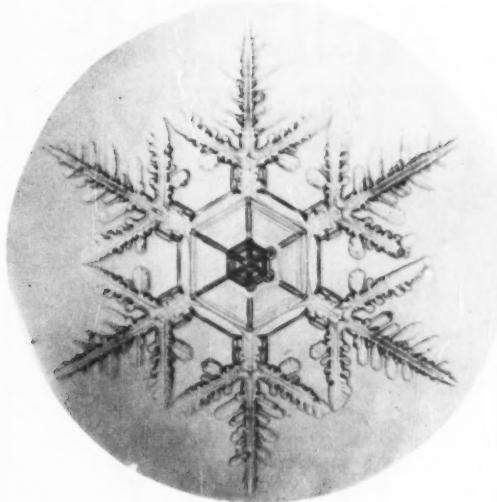


THESE delicately exquisite images fall by the countless billions from a winter sky, only to vanish after a moment's existence. Professor Ukichiro Nakaya has spent a lifetime in pursuit of the secrets locked within snow crystals, and here are a few examples of what he has seen under the stage of his microscope.

To the artist and designer, the structural beauty of a snow crystal is immediately evident. No two crystals are quite alike, providing a fantastic variety of motifs for the observer who can arrest and magnify their images. The professor has assembled more than fifteen hundred photographs in his just-released book: "Snow Crystals" (reviewed in this issue). The volume provides a rich source of inspiration and design material for creative artists. ▲



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Our Maturing Taste in Design

by PAUL REILLY

Reprinted from The Penrose Annual, a publication of Lund Humphries & Co., Ltd., London—Distributed in U. S. A. by Farrar, Straus & Young, Inc.

THE elegant ladies of Milan, perhaps the best dressed women in the world, sport the gayest and smartest accessories to point the classic greys and blacks and whites of their trim costumes: a handbag to echo a collar or a hat to match a handbag, fine drawn gloves and slim pointed shoes poised on exquisite fragile heels and, as often as there is a cloud in the sky, an umbrella—not just an ordinary umbrella, not a serviceable gamp, but a tall and slender instrument as thin as a dandy's cane, as frivolous as a parasol, capped with a glistening handle freely shaped in real or

make-believe gold, or silver, or ivory—umbrellas that are as far removed from the recently fashionable stumpy brolly as Eiffel was from Martello.

These fanciful creations and the delightful creatures who parade them may, at first sight, seem remote from serious purpose, from the graphic artist's standpoint. What on earth can a pointed toe or a slender umbrella have to do with typography or layout? Note the descriptive words I was compelled to use—gay, smart, classic, trim, slim, slender, even frivolous and free. They are all words that come easily today in describing designs that are currently fashionable, whether the subjects are architectural, industrial or typographic. The fresh elegance of high fashion is but one expression of the trend of taste and perhaps not the most consistent. Yet the comparison between today's long slim and yesterday's short squat umbrellas has wider reference than to the world of fashion. The same progression from bald serviceability to elegant allure, the same slimming and refining, is noticeable in many fields of post-war design—noticeable, that is, only within the limits of modern movement.

Outside the modern movement little has changed. Deep-rooted conventions impel the purchase of everything that goes into the home, from department store art to the cocktail cabinet. 'Keeping up with the Joneses' is still the strongest incentive, whether in Scarsdale or Wimbledon. The same delusions of grandeur are still peddled on easy terms in furniture shops, the same corpulent shapes and shiny surfaces have been unchanged in almost a quarter-century. Though new industries sometimes break loose from Tudor or Queen Anne cabinets, the merchandise guarantee must always be headed with Gothic script to win the customer's confidence. In short, the 'trade' goes steadily on giving people that to which they have grown accustomed.

It is not, therefore, to the trade that one looks for trends, but to the small world of creative folk who try to achieve sincerity, conviction and consistency. In this small but important world changes are under way that could, within the lifetime of our generation, seize popular taste and lift it to a new plane. The ideas of the creative minority could, for the first time since the industrial revolution, become the accepted standard for the multitude.

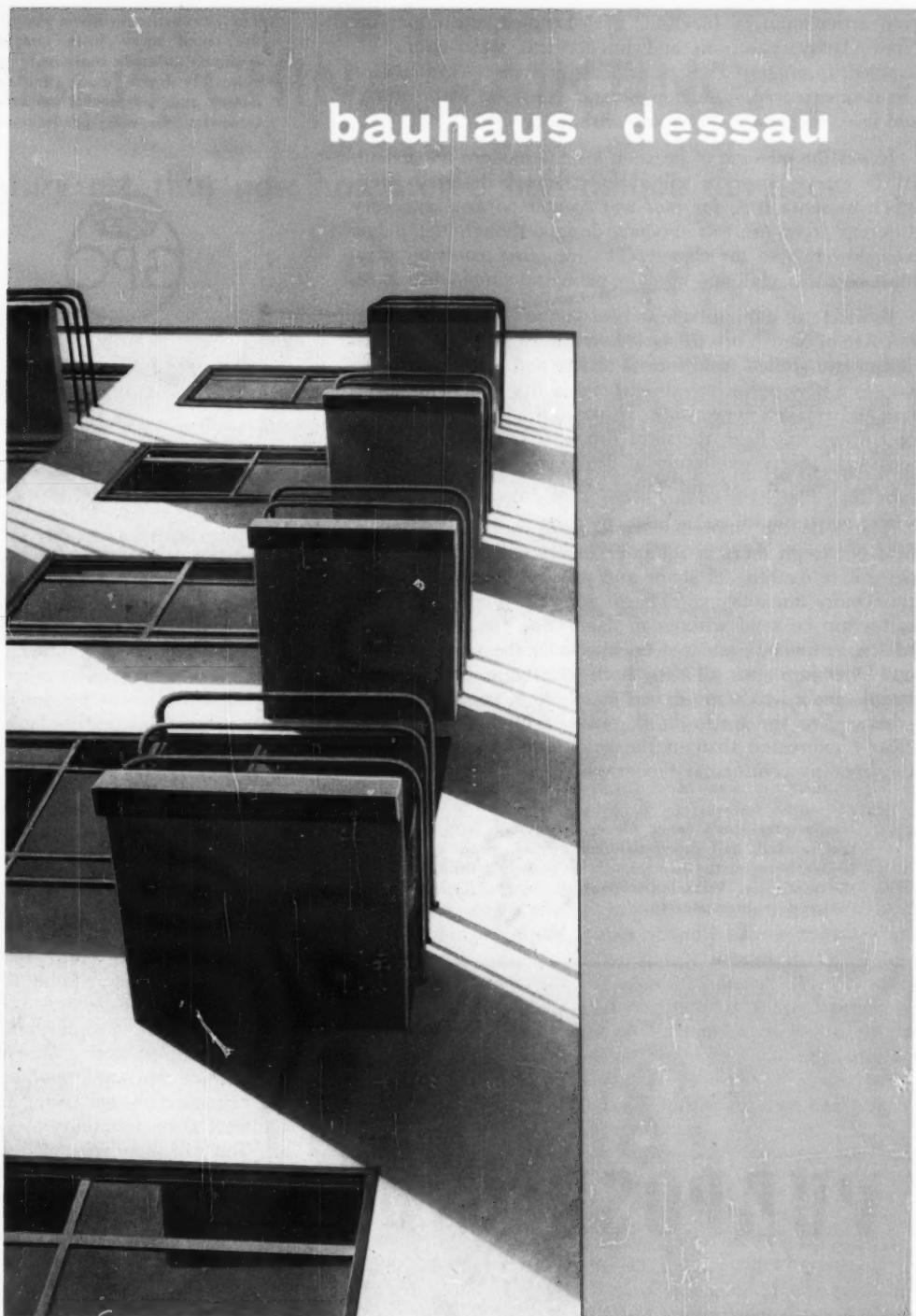
On what can such wishful thinking be based? Partly on history and the repetitive cycles of taste, and thus on the evidence of the two umbrellas, and partly on the persistence

SCIENCE
AND THE
CREATIVE
ARTS
WILLIAM
BOWYER
HONEY

The book jacket for "Science and the Creative Arts" marks the move away from stark, bald statements and the return to the enjoyment of type and letter forms. Much more of British typography seems to favor elegance and decorative borders, not yet markedly veering toward the Victorian, but definitely away from 'functionalism.'

bauhaus dessau

An admirable specimen of Bauhaus clarity and precision with the sanserif simplicity that greatly influenced graphic artists of the twenties. Designed by Herbert Bayer for the 1928 Bauhaus prospectus.



of popular taste for gingerbread, for the appearance of wealth and well-being.

In the early days of the modern movement, the days of fitness for purpose, there was little contact between the purists and the populace. The efforts of the functionalist pioneers made little impact on popular taste, profound as their effect may have been on students in the schools. It was a necessary slate-cleaning phase, a period of protest, but, as with all reforms, the protest was often carried too far.

Seen from a distance it was somewhat bleak and dehydrated, a square, spare, bare period with a sanserif directness alike in architecture, industrial design and typographical layout.

It had its own vocabulary, a spartan phrase book full of epithets like strong, bold, simple, plain. And on the cover was the one word: "functionalism", translated from the German. It produced clocks without numerals, walls without pattern, rooms without color. Printers aimed for the stark statement and for geometric interplay. Architects strove for

bold articulation of function. Well-handled, the idiom offered clarity, precision and intellectual satisfaction. Ill-handled, it suggested idle short cuts and easy ways out for the inexperienced. Function became confused with 'utility' and freedom grew synonymous with fancy.

It was the moment of decision for the modern movement. In the eye of history it will appear that our designers were quick to sense this, for post-war 'contemporary' was very different from pre-war modern design, though the public was slow to spot the change. The idea that 'contemporary' must be either chill and bleak or plain and simple died hard.

In 1951, an exhibition was held at the Museum of Modern Art in New York to show how the emphasis in modern design had shifted from formal clarity and geometric precision to a new, softer mood—expressed in greater fluidity of line and relaxed appearance. In the same year the Festival of Britain was held, the most dramatic expression of new ideas, and every exhibition of design since has underlined the maturing of this mid-century taste.

The Milanese umbrellas are in good company. In every field of design there is a lighter touch, more concern with decorative qualities of shape and pattern, of color and texture, more humanity and charm and wit. The word pretty can again be used without a blush. The fun is being put back into function and not unexpectedly the world of print and letter forms has all along been sensitive to this changing mood—indeed to some extent has been a pacemaker. Nowhere were the forthright dogmas of functionalism more clearly expressed than in the bald geometrical layouts of the pre-war continental typographers, and nowhere is the

Herbert Spencer's cover piece, being half frivolous and relaxed, half functional and formal, serves as a bridge between the two schools of thought. Although the motif has Victorian overtones, the treatment of design is contemporary.

Typographics No. 5 – a special issue containing over eighty illustrations (many in colour) of post-war printing design – is devoted to

PURPOSE AND PLEASURE

an exhibition

A review of book, magazine and commercial printing from fourteen countries. Contributors include Max Bill, Paul Rand, Herbert Simon, James Shand, W. J. H. B. Sandberg

Lund Humphries 5/-

The contrasting symbols shown here for the G.P.O. sum up the trend away from simple geometry and functional economy towards more subtle, fluid shapes. Stuart Rose's delicately drawn lozenge replaces the circle-round Gill Sans letters and a graceful crown replaces its depressed and somewhat shapeless predecessor.



new mood better reflected than in the return to serif and borders and the almost georgian elegance of much present-day work.

If historical parallels have any value, this present phase of taste can be likened in many respects to that of the last years of the Eighteenth and the first years of the Nineteenth centuries. The two periods are, so to speak, in balance. It would not be difficult, for instance, to mix in the same room furniture by Sheraton with some of the carefully detailed pieces by our best contemporary designers; many present-day textiles look comfortably at home in small Georgian houses.

There is thus a familiarity about much that is done today, a recognizable friendly quality that was somehow absent from many of the pre-war intellectual exercises. It is on this that the bridge could be built. When designers talk to the people in a robust language they can understand, the people will reach up and go along with them. The public is not so attached to its gingerbread that it would not change brands if something better were offered. There is some evidence that it is already doing so. Recent surveys of the retail furnishing trade have shown a growing preference, especially among young people, for what is called contemporary design. So important is this market becoming that sections of the trade that, until now, have scorned any design that is not retrospective, are trying to imbue these new ideas with commercial respectability by terming them 'New Elizabethan.' But call them what you will, they are here to stay and all fields of design must be influenced by them.

Sentiment and nostalgia are always around the corner, as long as a designer uses his heart instead of his head. Victoria is never far away.

The contrast between present-day British and German tastes is a marked one. The Germans seem deliberately to have traced their steps to the Bauhaus and to be picking up the threads where Hitler rudely cut them. After twelve years of naive totalitarian instruction it was perhaps a natural reaction to hark back to the last period of free expression. But the current examples from Germany of this sanserif idiom serve more to emphasize its qualities than its shortcomings, while some of the examples from Britain of the opposite trend serve rather to underline the dangers of too hasty steps toward a near-baroque on the one hand, or too much nostalgic retrospection on the other.

The examples which illustrate this article indicate to some small degree how the wheel of taste is turning. ▲

THIS IS CHINA PAINTING

a 17th century art that now has over a half-million devotees

ARE you a beginner in china painting? You're in good company; thousands of new devotees have tried their hand at this ancient art for the first time this past year.

If you have never handled a brush for china painting purposes, your first work should be done on a flat surface like a tile or plate. This allows greater freedom than working on a cylindrical or odd-shaped object which may necessitate holding by hand.

Tinting is the first objective you must face. Tinting may be done with tubed colors or ground pigments. Naturally, the slightly more expensive tube color is preferable; the moderate extra cost is easily offset by the saving in time and trouble in preparation. No grinding is required. If, however, you are a true dilettante and want to grind your own powder color, here's the procedure:

GROUND PAINT PREPARATION

Pour your powdered pigment onto a glass surface or in a mixing bowl and grind it with a pestle until it is free of any gritty feel. Next, add a binding medium—just a few drops of oil—and stir to a thin paste with a palette knife. It should drip slowly from the blade when properly mixed.

Next, take a piece of scrap silk and wrap it about a wad of clean cotton to make a soft pad. This will be used for pouncing the color (i.e., dabbing down onto the color until a delicate shade and consistency is achieved.) The paint must then be applied with quick, even strokes, using a soft Camel's hair brush. (*tip*: if you soak the brush tip in warm

water for a few minutes, it will eliminate the possibility of hairs coming off onto the china surface.) Bear in mind that thick paint does not fire well, but tends to later flake away.

If, despite your frantic efforts, a few hairs do lodge in the paint during application, don't fall on your spear—there's a simple way to pick off those annoying bristles. Simply take a china marking pencil and touch its point to the hairs and they will lift away easily. Once you have applied your china paints and allowed them to stand a few minutes, (in case of dripping from a thin mixture) you are ready to fire the piece.

ADDING SECOND MOTIFS

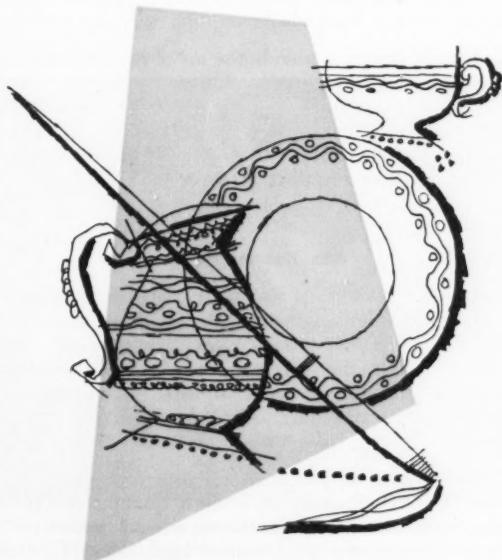
Perhaps you want to add other designs after the first firing has been accomplished. Your first ones may have been done freehand, but subsequent details may require an exact, traced pattern. Your procedure for tracing designs is as follows:

Locate an interesting motif in a book, magazine or even photograph. Place tissue paper or overlay paper on top of the illustration and lightly trace the design. When you are satisfied with the appearance of the motif, render it in pen and India ink for a final, finished effect. Now, take a piece of carbon paper (typing carbon will do in a pinch, though a less smudgy graphite paper would be more suitable) and slip it under the design. Place both papers in proper position on the plate or bowl to be decorated and stick them firmly with masking tape. Using a sharp stylus or hard pencil, retrace your design onto the piece. Remove the tracing paper and drawing. You now have a transfer which can be made more permanent for subsequent painting by again tracing the design with pen and India ink directly on the object's surface. The India ink has a water base; when placed in the fire, it will evaporate and disappear; it does not rub out with the paint as oil and water do not mix. Any residue can be later removed with ordinary alcohol.

Black outlines can be made with India ink to help you contain your paints. If these are to be actually part of the design, you must cover them with a good oil paint, applied liberally and thickly, unlike the more delicate tinting hues. A sable brush is best for this purpose.

Adding of straight lines can be done with a gauge; circles are easily scribed with a compass and soft pencil. The final painting of straight lines and circles, however, requires much practice and a steady hand.

Once your oil paint has dried—overnight or longer—you may erase any India ink or watercolor guide lines with a damp cloth, using ordinary water or alcohol. Retouch as deemed necessary. Fire the piece a second time. Repeat the procedure for all additional firings. Bear in mind that certain colors fire at a different time interval than others, so it is best to fire individually when in doubt. ▲





Realistic Industrial Design

JEAN OTIS REINECKE heads a major Chicago firm of industrial design, has created the familiar styling of such products as the Servel refrigerator, Bell & Howell camera, Scotch Tape dispenser, Motorola TV and Toastmaster toaster. Recent President of the Society of Industrial Designers, he is presently first Chairman of the Board of this organization.

Art for Art's sake?

Not in this profession

by JEAN OTIS REINECKE

Reinecke Associates, Chicago

immediate comment to these persistent rumors is a loud, "Sour grapes!"

I will grant that when the profession was in its infancy, some early designers pompously proclaimed to the world at large that they were "artists" dedicated to the application of art to industry. While they did improve product appearance in general, they created designs which were thoroughly impractical for mass production and could not be manufactured. Or they produced designs that, while pleasing to themselves esthetically, were not acceptable to the buying public and were doomed to failure.

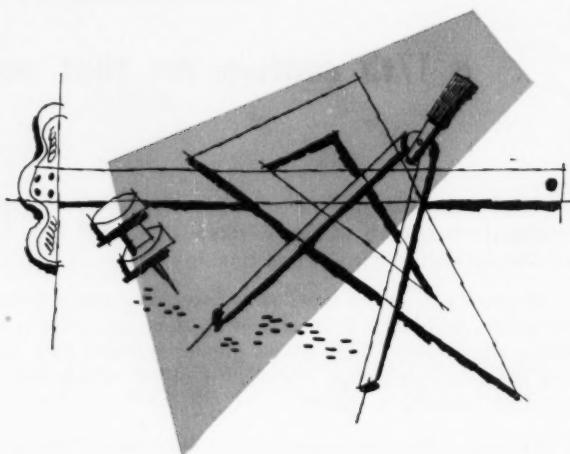
Today, when appearance is playing an equally important role with engineering in the building of successful products, we can disperse the clouds of misconception which surround the profession of industrial design by a down-to-earth, candid declaration of objectives in hard-headed, realistic terms. As a designer, what is your goal?

Industrial design is merely the art of building sales appeal into a product before it is presented on the market. Basically, the most important single element for the consideration of a product designer is *sales*. And the only reason manufacturers employ designers is to have them provide the necessary sales-winning appearance for their products.

'THEY JUST GROWED' . . .

It wasn't too long ago that most successful products owed their appearance to engineers. Looks were something like Topsy in "Uncle Tom's Cabin"; they "just growed." With the coming of age of the design profession and corresponding development of the products stylists, manufacturers have found that smart packaging, coupled with intelligent research into people's buying habits, means increased sales.

Sales-winning appearance is of vital importance. No product, however uniquely its esthetic qualities are presented, may be considered as a good example of industrial design unless it can pass the acid test of high sales. Furthermore,



It would be wonderful, wouldn't it, if product designing and development were as simple and uncomplicated as this young man would have us believe. However, it is not that easy. Art alone is not the key to successful industrial design and the designer of today is an individual not only versed in art but one who also possesses a firm, working knowledge of engineering, merchandising and manufacturing.

How simple it would be if product styling and development were just a matter of waving a magic brush over a sketch pad. Unfortunately, industrial design is not that elementary; it is a time-consuming, step-by-step process which must evolve from the soundest basis possible through research and new knowledge gained from experience and hard work.

Oh, about that young man. He didn't get the job. But our conversation with him did illuminate a situation which has confronted and confounded the industrial design profession since its very inception. For over a quarter of a century, our field has worked and existed amid a flood of rumor and misconception. As a result it is little understood by the people it benefits.

Despite the many accomplishments which have brought more and better products for all classes of people, the unwarranted concept exists that the design profession is filled with impractical visionaries, more interested in creating esthetic intangibles than in producing saleable merchandise. As an industrial designer who has been actively engaged in the field of product development for over two decades, my

no matter how attractive and elegant an object may be, if it does not win mass acceptance, the designer has failed in his principal function.

This may cause the esthetic designer who advocates "art for art's sake" to burst forth with a violent storm of objection; nevertheless, if the designer hopes to be engaged by industry and to grow as an integral part of it, he must design to suit Mr. and Mrs. Anybody, and not an artistic clique in any ivory tower. It's the average fellow who has the last word. If he will not buy—if the product does not appeal to him—then the designer must develop other articles which fit his demands and tastes.

While much criticism of the industrial design profession comes from outside sources, some misconception gains impetus from within. Some time ago, I heard a prominent designer declare that: ". . . the prime function of the industrial design profession is to reintegrate a society that has been unable to cope with the tremendous forces of technology imposed on it by the industrial revolution." A high-sounding declaration of principles indeed! But one far removed from the very basis upon which the profession was founded.

Despite such extravagant claims by some designers, the notion that most designers are long-haired, impractical esthetes is generally without foundation. While many successful industrial designers have their own uninhibited idea of what an article should look like, in the stark reality of business, personal likes invariably are relegated to a back seat.

Almost every day, I am asked for my own definition of a designer's principal function. There is nothing unique about what I think the designer's aims should be. His primary concern (which of necessity is identical to that of the manufacturer) is the creation of products to appeal to the greatest number of potential buyers.

The designer's main objective, therefore, is to fashion products with strong sales appeal. He can achieve this end through an understanding of current style trends; such trends which are indicative of the contemporary drift of consumer acceptance.

THE DESIGNER IS A REALIST

To successfully fulfill his functions, the designer must be capable of taking the findings of consumer research and marketing and correlate them with the findings of the sales force of his client. It is also his function to design products that may be interpreted intelligently by the client's engineering staff. Working closely with the client in this fashion, the results are usually a product that has not only genuine sales appeal, but also is capable of being manufactured at a competitive price with the equipment available.



BARBECUE GRILL designed by Reinecke and Associates is functionally beautiful. Simplicity leads to easy maintenance, reduced production costs. Mell-Hoffmann Mfg. Co., is client.

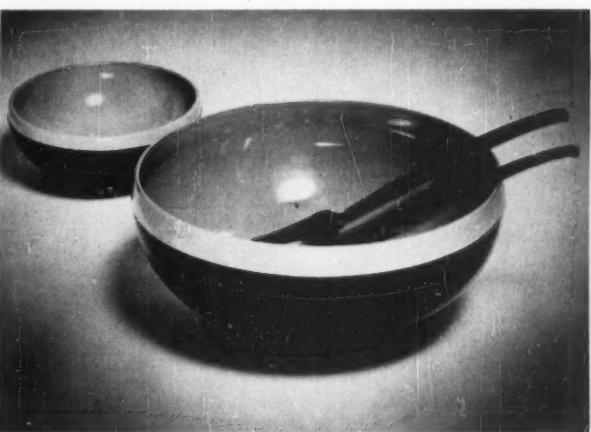
I do not intend to minimize the role esthetics play in the evolution of a successful product. An inherent appreciation of the basic principles of art and the knowledge of how to apply them with materials at hand and with manufacturing facilities available are not only necessary but are vital attributes if the designer is to fashion a product, improved in appearance and function, which meets the requirements of consumer tastes.

Yet, it must be remembered that design is not a veneer to be applied in the same manner as a beautician applies synthetic coloring to simulate health and beauty. Rather, improved appearance must be built in and not applied. It has little or nothing to do with pure decoration and is essentially based on capability, effectiveness, competence, durability,

please turn to page 37



FIVE-IN-ONE Webcor "Quintet" radio includes a clock, phonograph attachment and tape recording plugs, and auto-timer switch for starting electrical appliances into operation at chosen moment.



THERMO BOWL serving set, designed by Reinecke for both decorative use and utility. Sealed airspace between polystyrene surfaces keeps contents hot or cold as desired.

STYLIZED COSTUME JEWELRY

by JEWEL H. CONOVER

Teachers College, State University of New York



BRACELET AND COSTUME PIN were fashioned of silver, the former decorated with twisted and hammered silver wire.



NECKLACE AND EARRINGS combine Aztec flavor with clean contemporary lines, using silver wire and jade. Earrings' design evolved about shape and character of stones.

photos by George Zimmer

ONE of the most satisfying of arts for people who find pleasure in beautiful craftsmanship is creating jewelry in metal.

During the entire designing the artist must be aware of all the practical and esthetic considerations which are involved; jewelry must be functional, comfortable; well balanced and, of course, decorative. It must not be too heavy or awkward, nor difficult to put on and take off.

The good craftsman who creates a jewelry design will find it advantageous to detach himself from academic realism and strict representation. He should seek the beautiful lines that make interesting forms; constantly, he considers his material and the lines and forms that are right and logical for that material. He observes and is always conscious of its possibilities, its limitations, and its beauties and he makes the most of all these things. Above all, he doesn't try to make it do what it isn't meant to do.

Of course, he studies the work of other craftsmen and, as he does this, he analyzes the techniques involved, considers whether or not the work is honest and creative, and he evaluates the total result. Then when he creates his own designs, he puts all thoughts of imitation out of his mind, for his work must be a part of himself, a highly personal statement of what is beautiful and right for the piece he is making.

The creative craftsman learns about the material he is working with. He manipulates it, experiments, is hard to please. Often, while he is working with it, he will actually happen on an arrangement, an organization of lines and forms, that will be more satisfying than any he might have planned on paper. One might think that this could be an expensive use of material, but there will be little true waste because, sooner or later, the experimental pieces of metal will be useful in some future design.

Where do you find the inspiration for design in jewelry? Go to nature, always. Observe the contour of an object without thinking of the thing itself; you will see an endless variety of interesting lines. You quickly will form the habit of noticing a shape without becoming conscious of what that shape really is—a leaf, flower petal, stone, shell, or the pattern of lines within that shell. Then you will consider whether or not that shape is adaptable for translation to silver (or other metal) and whether the contour or pattern of lines would be right for silver wire. Try it with the material and as you work with it you will gradually adapt it until it develops into a satisfying and original creation.

In making jewelry, one must be a meticulous craftsman and a patient one, for the work demands careful finishing. High standards must be maintained during the last procedures of cleaning, buffing, and polishing. These things could, of course, mean the success or failure of the piece.

A piece of jewelry (no matter how seemingly simple it may be) that is an original idea and is well designed, constructed, and finished is a gratifying accomplishment in itself. Happily, it becomes a step in the evolution and development of further creative work in this most fascinating of arts. ▲

unusual art media:

WHISK-IT MAGIC



THE lowly whisk broom has just been added to the list of creative craft tools! Now you can use it to hand-decorate your wardrobe, draperies, tablecloths and for a variety of classroom art projects. The young lady seen below has turned a clothes closet exile into one of the highlights of her sports wardrobe. All with a few jars of textile colors, some sponges and a five and dime store whisk broom. The technique is obviously adaptable to any use your imagination and talents can improvise.

Quick drying Prang textile paints were utilized to test the results for this article. You may work freehand if you wish, or prepare simple stencils for repeat motifs.

Best results are on lustrous cottons, nylon or linen cloth of the type that has no raised pattern or dominant texture. The textile color is brushed or sponged on, using bright hues for striking effects. A solid background color can be over-painted a few minutes after the basic color has dried. Freehand details are done with a bristle type brush, the repeats are rendered with blockprints, screenprints and stencils. Good textile colors are, of course, fadeproof and washable.

The technique needs little further explanation; just stroke or pounce with the whiskbroom, forming naturalistic or abstract patterns and swatches of color. Stencils can be slipped slightly after the first application has dried, to create a duo-tone motif. Use a complementary color for the second application from the same stencil.

Whisk broom printing may also be experimented with on ordinary newsprint. This quickly absorbs the textile color, much as does cloth, and allows you to test results before actually applying to your material.

Art teachers will find whisk broom painting a delight to youngsters, and more advanced students are capable of turning out textile painted items that make exciting gifts and saleable merchandise. ▲



© American Crayon Co.



FANTASTIC CELASTIC

you've never seen anything quite like it!

Illustrations courtesy Ben Walters, Inc., 156, 7th Ave., N.Y.C.
National Distributors of "Celastic"

IT begins to look as if the time honored process of papier mache, with its attendant mess and fuss, may be living on borrowed time. With the advent of a new medium known as "Celastic," you can now create exact duplicates of just about any solid object in a matter of minutes.

Stagecrafters, display artists and art educators speak in enthusiastic terms about this unusual, colloid treated fabric which clings against masonry, plaster casts, trees, rocks, architectural elements—and when lifted away becomes a durable "double." Now you can make your own reproductions of expensive originals at a cost that should not put undue strain on even a modest budget.

Celastic is no mere mechanical tool. It has a host of creative uses in the hands of an imaginative art-craftsman. The material comes in two varieties; sheet form, for reproducing objects that are to be covered completely, and in strips for "scribble sculpture" and free hand shaping.

Basically, Celastic is a tough cotton fabric that has been impregnated with a colloidal plastic. When dipped in a special softening agent it becomes pliable and can be draped, moulded or shaped by hand. In about twenty minutes, it dries rock hard. It is weatherproof, can be drilled, sanded, cut or painted.

Industry has found almost limitless uses for Celastic. Hollywood sets are made of it, for it is low in cost, takes abuse and is extremely lightweight. The automotive people use it for patching holes, torn fenders and weather eroded parts. Even the orthopedics industry has put it to use in making artificial limbs and braces.

Are you a model enthusiast? This unusual medium can be fashioned into tunnels, landscaping and bridges. Toy planes, lightweight dolls, fashion mannequins, stage props—you name it and you can celasticize it.

For casting, Celastic can be used in negative or positive moulds. Free-hand projects are child's play. You simply dip the material in the softener, wait a few minutes until it is almost dry, then shape it into masks, flowers, abstractions or similar art objects. In a few more minutes it is hard as stone. If you wish to reshape it, just immerse it once again in the softener and make your corrections.

Celastic can be sensitized to receive a photographic image and then shaped into any three dimensional form. The effect is startling—a sculptured mannequin with the face of somebody you know.

Silk Screening: The manufacturer advises us that Celastic can be applied to silk screening so that the finished work is no longer confined to flat planes or simple curves. For example, apply a silk screened motif of a man's head to a sheet of the material. Then, with a few deft touches of the fingers, the nose tilts, the brow rises and the cheeks puff out. Is your motif a ballerina? Slit the outline and flare her skirt, lift the leg and bend the body into any posture desired. She seems to be stepping out of a frame right into the display window! You are now working in a brand new medium—silk screen sculpture.

If your school or theatrical group has a small budget for props, Celastic may well afford the logical answer. You can cover fruit, shadow boxes, masks, cornices, pillars and posts, and when the material is dry, a few slits with an X-acto knife frees the object into two sections that can then be joined together with a ribbon or two of the stripping. Incidentally, when Celastic is dry, the patching becomes almost invisible. The surface is smooth and takes paint readily.



REAL FRUIT? No, this still life has been entirely created with the unusual medium described in this article—fruit, peels, basket and drape.



CELASTIC STRIPPING is run through a pan of special softener, then curled or "scribbled" into free form shapes like those shown at right.

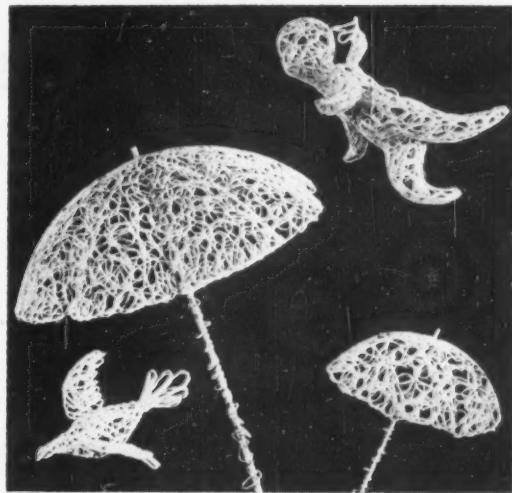
Paper sculpture technique: Here is the working procedure for all those projects you previously had to construct by the papier mache method.

1. Cut pattern from Celastic and dip into the softener for about five seconds. Lay the pattern flat and allow it to set for about fifteen minutes, until it is smooth and feels like leather. Lift it occasionally to prevent sticking. It is now ready to model.

2. Now you can shape, twist or roll the material as desired. For textural effects you may wish to press the sheet over a surface that has some grain or it may be tooled. For complicated shapes use tacks, staples or masking tape to temporarily hold the object until it sets. When corrections seem advisable moisten those sections with softener and make the changes.

3. When twenty minutes have passed the object will be rock hard. If necessary, you may now paint.

Casting: Initial projects should be simple ones, until you have mastered the technique. Whenever possible apply Celastic in one piece to avoid sanding later. If



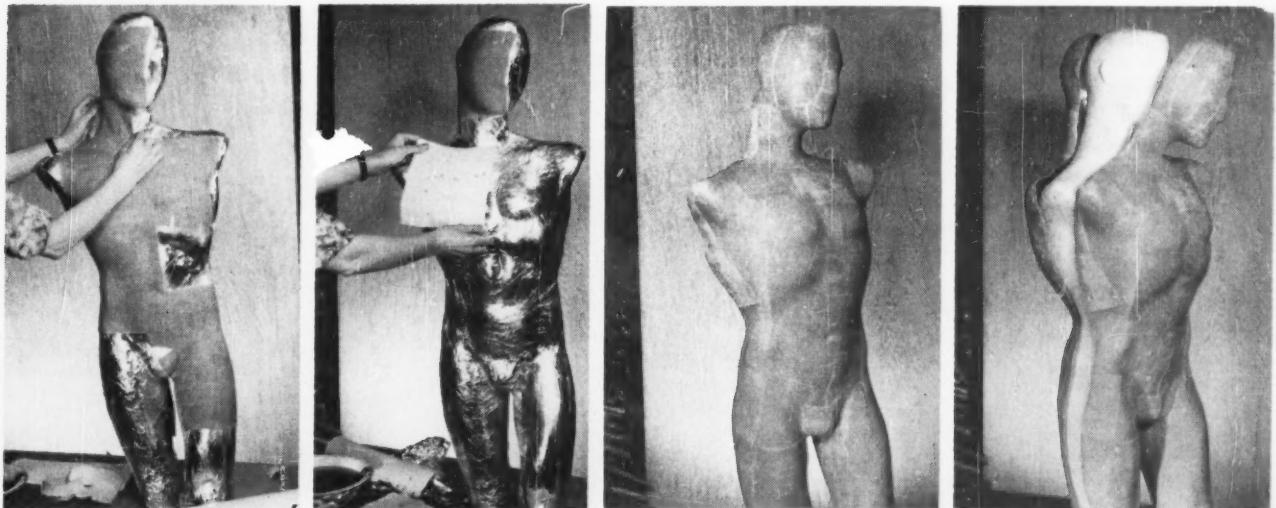
the mould is deep, tear the material into pieces and then apply. No paste is necessary.

Use only a raw plaster mould. Dampen it with water and then brush on the Parting Agent 737 which the Celastic Corp. has developed for this process. After five minutes brush on a second coat and let it dry for five more minutes. It is now ready for your application of Celastic as above-described.

The Parting Agent 737 takes the place of vaseline or wax which you usually use in mould work. A final word of caution: never use Celastic on shellacked, waxed or painted moulds; the Parting Agent is not made for this type of use. It can be used by employing the Celastic and Tinfoil method as depicted below.

Full round models in plastilene or clay: If you are working with a plastilene model of an animal form, tear strips of Celastic and wrap them mummy-fashion about the model until it is completely covered. When it dries, cut the animal form in half and scoop out the wet clay. The two segments are then joined with another strip or two. (For sculptured heads see photo-instructions.)

for additional data turn page



SCULPTURE "DOUBLE" can be made in two hours. Parting agent is wiped or brushed over the form then the tinfoil is applied covering the entire surface. (Parting agent and tinfoil act as a separator.) Swatches of softened Celastic are applied over the tinfoil until it is completely covered. After twenty minutes the sturdy shell is removed by slitting with X-acto knife. The two halves are neatly joined with strips of the plastic wonder fabric to form a durable, lightweight duplicate.

mask project in celastic

BINNEY & SMITH STUDIO DISPLAY AT THE RECENT EASTERN ARTS CONVENTION



THE handsome mask illustrated above requires an experienced hand in its creation, but the technique lays within grasp of student or serious hobbyist. The procedure followed in its construction was:

Materials and equipment

Medium weight sheets of Celastic and several yards of 3/16" wide Celastic ribbon. Special softener. Parting agent. Tin foil. (Suggestion: The Celastic stripping is more economical to use and permits greater creativity among young artists. Save your big sheets for serious projects of a permanent nature.)

Working items

Metal pan in which to pour softening agent. (Keep well-covered against evaporation.) Clothes line or rack on which to dry draped sections before application to the model. Oilcloth table cover to protect working surface. Stapling gun. Pair of rubber gloves, to keep softener off hands. (This is optional; the liquid is not injurious under normal working conditions, but if not washed away, it would harden about fingers like rubber cement.) Celastic is inflammable, but then, so are alcohol, turpentine and many other common art materials. Common sense precautions will make the new medium acceptable for any school use. Simply keep it covered firmly when not in use.

Decorating materials

Clayola Modeling Clay, Artista Tempera Paints, usual brushes and paint rags. For textural modeling effects use orange sticks, nail files, spoons, etc. Trimmings are

ANOTHER USE for Celastic is seen in this grotesque mask which slips over Barnum & Bailey Circus clown's shoulders. Light weight makes prop ideal for active use under hot lights; easy repair or alteration of features is another advantage.



please turn to page 40

Improve Your Frames With Inserts

a frame-within-a-frame that adds contrast and mood to your paintings

by RICHARD M. ROBINSON

THE framing of a painting is important in showing the picture off to its best advantage and bringing out the true colors and forms intended by the artist. Poor and inappropriate framing can detract from the picture and ruin the effect that was originally achieved. One of the most effective features of a good framing job is an insert or liner; a narrow linen or gesso covered frame within the wider frame. Such an insert forms a neutral area around the painting that helps to lead the eye gently from the frame proper to the picture and keeps a heavily ornamented or colored frame from intruding on the painting.

Such inserts are not furnished with the ready-made frames or frame material on the market. They do not come with the inexpensive commercial framing jobs but only with the more expensive frames created by high priced experts. If you, as an artist, wish to use this method of giving your painting every advantage, you have two alternatives. You can take your picture to one of the fine framers where it will probably be framed with such an insert. Or, if you don't feel financially up to such expense, you can make one of these inserts yourself. This latter means will require a little time and effort, but it is worth it in improving the finished effect of the painting.

A one inch wide insert, which is usually the best size, can be easily made if you have a home workshop. Lacking

this, you can have the material quickly cut and prepared for assembly by a cabinet maker or lumber mill where you purchase the necessary wood.

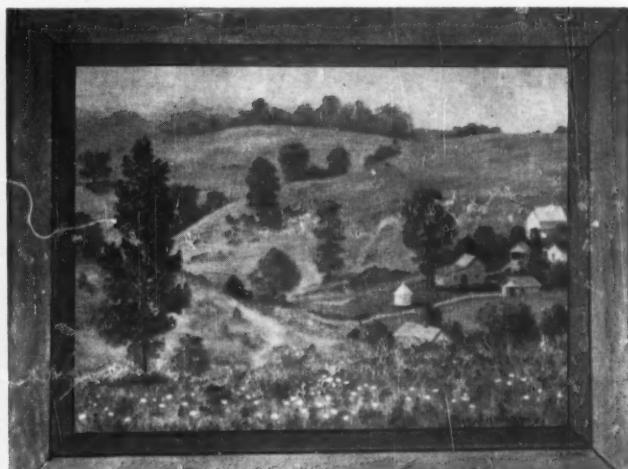
Basswood is probably the best lumber to use as it is easy to shape and nail together. However, this is sometimes hard to find at a small lumber yard, so white pine or poplar will probably be used. A standard inch or $\frac{3}{8}$ " board of sufficient width and length for the amount of insert material needed, can be purchased. It should then be cut into 1" wide strips and will be ready for working.

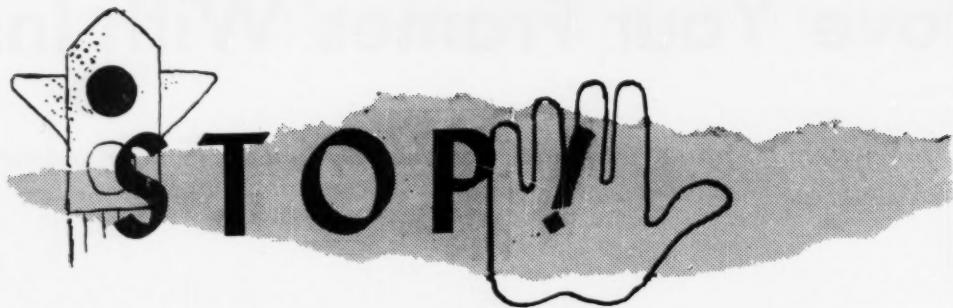
The power tools needed are a bench saw with a tilting arbor or fence and a planer-jointer. If you're without these tools the lumber yard personnel will have them and be able to do the work for you at little cost. A satisfactory (though slower) job can be done with hand tools.

Inserts come in two basic shapes. One is a beveled insert, and the other a flat one. The beveled kind requires an extra operation, but it is usually the favored type as it adds depth to the frame. In making a beveled insert, you start with a power saw. The 1" strip of wood is placed on the bed of the saw, and a bevel is cut along the length of the face of the strip. This is done by tilting the fence of the saw to such an angle that a bevel is cut from about $\frac{1}{8}$ " in from the outside edge of the strip and sloping down until it is approximately $\frac{1}{8}$ " deep at the inside edge. By leaving this flat surface at the outside edge the finished insert can be fitted into the rabbit of the larger, outside, frame. The angle of the bevel and the width of the flat surface can be varied to suit individual taste. After the bevel has been cut with the saw the rough surface of the saw cut can be smoothed off on the jointer. This smoothing operation will take about $1/16$ " cut, so allowance should be made for it in the original saw cut. If the insert is to be covered with fabric or gesso it is not necessary to plane it

please turn to page 37

SAME PAINTING, subject seems lost in frame (left) until insert is added to add contrast and depth.





7 posters from all over the world. which does its job most effectively?

All Reproductions from the 1954 Edition of
"International Poster Annual"

THE following three pages contain reproductions of outstanding commercial posters from many countries. They, and five hundred other prime examples of graphic art appear in the just-released: 1954 *International Poster Annual* (Hastings House, \$10.95.) Design Magazine has asked four professional poster designers to choose the one poster out of six which, in their mind, comes closest to being an ideal solution.

Which would you pick? Why? To see how your choice compares with that of men who earn their living at the art, turn the page. ▲

LEO KOUPEP
—France



CHARLES ROHONYI
—France



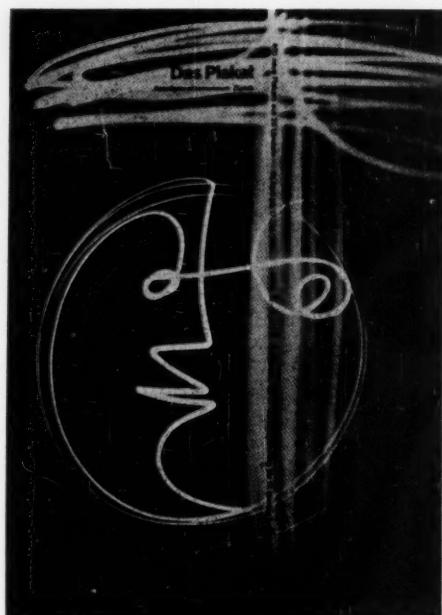
F. K. HENRION
—England

JOSE ARTIGAS OJEDA
—Spain





HIROSHI OHCHI
—Japan



J. MULLER BROCKMANN
—Germany

three professionals choose their favorites and tell why



DOYLE DANE BERNBACH

—U.S.A.

Charles Henry Carter

American taste in poster art tends to the direct approach and I go along with the crowd. I like my posters to be bold and clear. My three preferences, in order are: First, the *Punch* poster by F. K. Henrion. Its nicely designed, cheerful and summery adaptation of the *Punch* motif gives it immediate identification. The copy is jingly and, although I see only the black and white reproduction, I can imagine the color to be equally as bright and simple.

My second choice is J. Muller Brockmann's *Das Plakat*, for its arresting use of light-writing, a Picasso-esque device, but artfully adapted to poster use.

For third place I choose Rohonyi's *Le Soir*. Why? Because the artist chose to express himself in a very Gallic idiom and succeeded.

Ervine Metzl

My first choice goes to the J. Muller Brockmann "Das Plakat." It possesses powerful attention value, created by shapes, pattern and movement.

Second: The Doyle Dane creation for Levy's Bread. Here is strong appetite appeal and good design, plus effective arrangements of difficult-to-arrange elements.

Third choice is the Charles Rohonui poster for *Le Soir*. A pure poster with good design and dynamic silhouette.

Ladislav Sutnar

It is difficult to pass honest judgment on a poster from the basis of black and white reproduction, for please turn to page 42

THE INDUSTRIAL DESIGNER:

continued from page 25

and simplicity, combined with beauty and charm.

In the final analysis, the designer must be regarded as a man of business. After all, he performs his duties for a fee, rather than "art for art's sake." Actually, this does not call for any desecration of the designer's artistic sensibilities for the public in general has good taste and appreciates functional beauty. The average man likes good design; a factor that has contributed greatly to the phenomenal success the design profession has enjoyed over the past few years.

Of course, the industrial designer's services extend far beyond the mere appearance of new and old products. He is concerned with all related subjects — merchandising, new manufacturing methods, new markets, competition, new materials, use of improved equipment, and complete programming for company improvement through its products.

While the industrial design profession has flourished despite a persistent veil of misconception, there have been many inflated claims made in its behalf. These claims are indeed flattering, but like most flattery, they are likely to do more harm than good.

One claim is predicated on the acknowledged fact that in many instances good design has jumped the sales of a product double or triple to what it was in the past. This has led some individuals to expect the same sort of increase over an indefinite period. Unfortunately, this cannot be done. Design is both an offensive and defensive weapon; when first applied to a product it can provide a natural stimulant to sales and thereby win greater markets. Thereafter, it is the means of protecting a position already won.

Another extravagant claim is that products created by industrial designers will always result in production cost savings. This has grown out of outstanding cases where designers have overcome ineffectual methods and superfluous styling, giving momentum to the notion that designers *always* cut costs. Good design has trended toward greater simplicity and cleaner lines toward the elimination of functionless frills and fancies. This would naturally result in a cut in production costs. But there are probably as many instances in which the designer has caused production costs to be increased by the addition of new materials or new innovations.

While cost is not the primary function of the designer, it is nonetheless a definite limitation on him; excessive cost can price the product right out of the market. Yet the designer is aware that the price of an article is not as important a sales factor, ordinarily, as its design. If the design creates desire, the product will sell even though it is priced higher than similar items of inferior design. Quality is a factor to consider too.

Cost is not the only limitation on the creative imagination and expression of the industrial designer. He is limited by machine tools that must be employed in the manufacturing of an article. He is limited by the materials he must use for the reasons of cost, structure and availability. He is further limited by current style trends in the creation of a product for which there will be sales demand. He must hold sensible reins on his natural desire to please himself alone.

So long as our present system of free competition continues; so long as the buying public manifests a strong desire for good appearance as well as function in the product it buys, the industrial designer will be in demand. The cost of his service is in the same category as advertising costs. If the advertising is good, it brings in not only its own cost, but much more besides. Unit costs are decreased by mass production. Good design should do the same.

If the glamor tag which has plagued industrial design over the years can be eliminated, as it has in respect to ad-

vertising, the profession will make even greater advancements than it has so far. Once the businessman visualizes the designer as an individual who operates on a firm foundation of knowledge, experience and specific skills—once he realizes that the designer of today is a shirt-sleeve fellow who pores over blueprints and specifications by the hour, then diligently makes reams of sketches before arriving at the idea he likes and knows will sell, then the misconceptions under which the profession has existed in the past will be dispersed and industrial design will emerge as a dominant factor in the shaping of a progressive way of living. ▲



IMPROVE YOUR FRAMES WITH INSERTS:

continued from page 33

smooth.

After the bevel has been made, the next step is to cut a rabbit or square groove on the inside back of the strip to accommodate the picture. This is done on the planer-jointer. The standard width of this frame rabbit is $\frac{1}{8}$ " and the depth can vary according to the amount of wood left between the inside edge of the bevel and the back of the strip. About $\frac{1}{8}$ " is usually sufficient, thus making $\frac{1}{8}$ " square rabbit. After this operation, the insert material is finished, and it is ready to be mitered and joined into a frame.

When making a flat insert, the rabbeting operation is all that is required in the way of woodwork. A $\frac{1}{8}$ " wide rabbit is cut into the back of the strip to the necessary depth. With 1" thick strips the cut should usually be about $\frac{1}{8}$ " deep.

As soon as you have prepared the insert, you are ready to fit it around the picture. The painting should be measured and $\frac{1}{8}$ " added to each dimension. In the case of a 16" x 20" canvas, the measurements will be 16 $\frac{1}{8}$ " x 20 $\frac{1}{8}$ ". The insert material is then mitred to that size with a saw and mitre box (which can be purchased at any hardware store) and the joints are joined together.

In joining, the 45° mitre joints are first coated with good quality hide or synthetic resin glue which has been mixed to a stiff consistency. The resin glue can be bought at any hardware store in powder form and mixed with water. After glueing, the insert is nailed together with #17 wire brads of 1" or 1 $\frac{1}{2}$ " length. About two brads to each corner should be sufficient. This finishes the insert and it can then be covered with linen or other fabric of a neutral color, or prepared gesso can be spread on it and tinted to any desired color.

The larger frame can then be put around this insert. With a one inch insert on a 16" x 20" canvas, the outside measurements of the insert will be 17 $\frac{1}{8}$ " x 21 $\frac{1}{8}$ ". The width of the insert material can be varied so that a ready made frame with dimensions larger than the picture will fit around the insert.

With a little expenditure of time in making these inserts, your framing job on a valued painting will be improved, and you will have the satisfaction of knowing your picture is being shown to its best advantage. ▲



FIG. 1. The Birth of the
American Glass Industry

Extremely rare, crossed lily-pod
pitcher in the South Jersey tradition.
Circa 1840-60.

the story of American Glass

by THOMAS S. BUECHNER Director of The Corning Museum of Glass

THAT glassmaking was the first industry in the new world is proved three times over: In 1535 glass was made by Spanish craftsmen, probably at Puebla de los Angeles in Mexico. In 1592 a glass house existed in the Rio de la Plata region in Argentina under the supervision of Juan de Soria. Thick translucent slabs of glass were apparently made there from cullet and not basic raw materials. The third glass works was built in Jamestown, Virginia, in 1608, the first industry in the territory now known as the United States of America.

Although the Jamestown venture was far from successful, it typifies, almost exaggerates, the ideals and illusions held by American glassmakers during the industry's first 200 years. The English businessmen comprising the London company had exceptional vision: the manufacture of very mediocre glass was rapidly destroying too much English timber; demand for Venetian glass was proof of an excellent market; and reports from the new world told of endless forests bordering on beaches of sand. Obviously, here was a situation too good to miss. With a small initial outlay, a thriving industry could be set up in an incredibly lonely wilderness. This industry would supply England and the world with delicate drinking glasses and elaborately decorated plates and bottles. At the close of the 18th century this same illusion still existed; a primitive glass house in a wild unsettled country could produce from impure unfamiliar materials, a quality product comparable or superior to European ware.

In 1608 this goal was absolutely unobtainable. The eight Dutchmen (probably Germans) and Poles who sailed for the colonies in the summer of that year symbolized the hopes held by the old world for the new. No Englishmen could be recruited for the venture and it is doubtful whether the migrant European workers were experienced glassblowers. Although a furnace was built, the whole venture collapsed within a year. Indian savagery and unbelievable hardships reduced the colony of 500 to 60 by the fall of 1609.

Twelve years later the London company tried again—with no illusions about supplying the world with fine table

glass. The object of this second venture was "to sett upp a glasse furnace and make all manner of Beads and Glasse." The beads were to serve as currency for trade with the Indians.

The workers, recruited this time, were capable Italian glassblowers, adequately financed and carefully planned for. A letter from the London company to the Colonial authorities specified that the glass house should be constructed "Near some well inhabited Place"; a rather futile precaution against the great loneliness of the new world.

In spite of this care the second venture was not a success. The new glass house blew down in a storm and the Italians became so temperamental over one inconvenience after another that no glass was produced. The Indian massacre of 1622 was the end of the second attempt.

Jamestown was the first glass factory in this country. It was a complete, an utter failure. No single complete object exists to prove the nature of the ware made there, if any. Neither venture can be considered the beginning of America's great industry as there was no continuation. Jamestown was an isolated incident more than 300 years ago, a seed that never took root.

THE REAL BEGINNINGS

The real birth of the industry came in 1739 with the construction, by Caspar Wistar, of a glass house in Salem County, New Jersey. Originally, at Jamestown, exploitation had been put before self-preservation but now with the colonies growing in population, ideals and self-confidence, self-preservation came first and glass was made for the local community.

Caspar Wistar was the father of the South Jersey tradition and as such is responsible for the first typically American glass product. It must be remembered that he and most of his workers were of direct European origin and therefore worked in the styles of their homelands. At Wistarburg, his glass house in South Jersey, these individual characteristics were merged together with a typical American hybrid the result.

"Baron" Henry William Stiegel was a romantic figure, especially beside the conservative button-monger Caspar Wistar. Although Stiegel glass was first produced 24 years after Wistarburg and although the enterprise only survived 14 years as compared to Wistarburg's 41, the "Baron" had an equally profound effect on the industry to follow.

The South Jersey tradition differs from the Stiegel tradition in three basic ways: First—South Jersey glass is generally offhand work (made during the workers own time) and not the regular produce of the house, contrary to Stiegel type glass. Second—the metal is ordinary window or bottle glass, green or amber in color, with blue and white the only artificial colors. Stiegel, on the other hand, had a good clear metal and a large selection of carefully mixed artificial colors. Third—South Jersey pieces are invariably decorated with applied glass as opposed to the Stiegel tradition of enameling, engraving, and pattern molding.

In spite of the emergence of a style that was characteristically American, glassmaking in this country has always been strongly influenced by European work. John Frederick Amelung is a good example. He built a glass house in New Bremen, Maryland in 1784 and devoted himself and his resources to achieving a standard of excellence in metal and engraving comparable to the finest German work of the period. The famous Bremen pokal in the Metropolitan Museum of Art was made by Amelung and sent to Germany for the approval of his compatriots at Bremen.

The American historical flask is one of the most appealing articles in the history of American glass. Comparable in purpose to the English glasses dedicated to the Jacobean cause, the American bottles commemorate everything from Jenny Lind to the frigate "Ben Franklin."

America, as a great industrial leader, turned her new found production abilities to glassmaking in such companies as the New England Glass Company and later the Boston and Sandwich Glass Company. Offhand work by their employees indicates that no skill was lacking despite the trend towards machinery and production. The famous blown-three-mold technique was an early attempt to approach handcut glassware with an inexpensive substitute.

In spite of the rapid development of this country as an industrial leader, impetus still came primarily from Europe. Wealthy Americans imported the cut glass wares of Waterford, Dublin, and later Stourbridge, while their poor neighbors bought the best they could afford of the home product. The American manufacturer specialized in less expensive imitation, relying on his ability to mechanize and not attempting, perhaps unfortunately, to compete on a quality level. The prime example is, of course, pressed glass. In the early years following the introduction of the pressing machines in 1825, every effort was made to produce a poor man's cut glass even to the inclusion of a star on the bottom,

standard practice in the removing of the pontil mark on a cut glass. Eventually this straight imitation gave way to a new kind of glass generally referred to as Lacy Sandwich, although it was made by many other companies in addition to the Boston and Sandwich Glass Co. The term "Lacy" adequately describes the difference between the early and later pressed glass, with heavily textured areas placed in direct contrast to simple polished designs so that the effect was lacelike.

After the establishment of quantity producing machines early in this century, the industry was faced with the prospect of submerging the produce of all the various individual companies into one vast pool of glassware, each piece resembling every other piece with nothing to distinguish the product of one house from another. The reaction was immediate and rather violent, erupting in a series of technical accomplishments known as "art glass." There were two main fields of endeavor in which many companies participated: first, the yellow to red school, experimenting with the reheating of gold metal glasses and calling the results Peach Blow, Wild Rose, Amberina and Burmese, later the iridescent or metallic school, creating glass with the appearance of long years of burial by spraying the hot article with metallic oxides and labeling the ware Favrite, Quezal, Kew Blas or Aurene.

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Early American Glass

Above Columbia flask; Jenny Lind bottle; Washington-Taylor flask—typical 19th Century liquor containers.

Left Free-blown bank; pressed plate; three-mold decanter indicate range of techniques at Boston and Sandwich Glass Works.

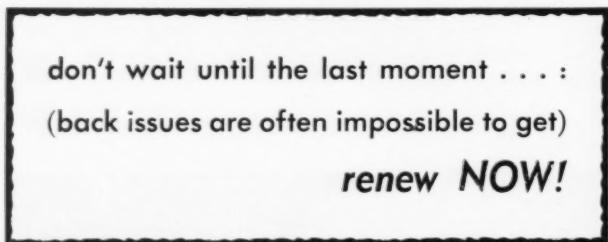
Projects in PLEXIGLAS:

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scattered on the powder. Or use small metallic stars and cutouts that can be purchased in art supply stores or from stationers. Another nice effect would be copper screening scattered in very small squares over green or blue metallic powder. Or dry a small oak leaf and sprinkle a background of gold flitter on which you will place the leaf. Press two sheets of lid together neatly and set aside to dry.

FIFTH STEP After the lamination has dried for twenty-four to forty-eight hours, trim and polish the edges. Now the two $\frac{1}{4}$ inch x $\frac{1}{4}$ inch x .125 inch lid stops should be cemented to the underside of the lid at diagonal corners, acting as "stops" to keep the lid in place. Cement these stops using the soak method but allow to soak only a short time—less than a minute will be sufficient (see Figure No. 6). Your finished project is shown on page 26.

Jewel boxes and many other similar containers of various designs can be made by the techniques described in this project. For many other projects, see "Plexiglas Craftsman's Handbook" reviewed in this issue of Design. ▲



creative growth in CHILD ART:

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"I am sitting on the floor, my train is on the floor, Daddy stands on the floor, my bed is on the floor; we all are on the floor." This first mass-consciousness in which the child includes himself as a part of an "orderly" environment in his drawings represents a great social achievement. The child by no means has become visually aware of his environment. A base line is merely a symbol and cannot be seen in reality. Yet I have found teachers who blame their children for "drawing everything on a line." It can be easily understood how such an interference would disturb one of the important social strides of a growing child, for we know that no feeling for cooperation can grow without this important experience of a mass-consciousness. But also for the child's feeling for spatial coordination and order this discovery from his creative expression is of great significance.

As the child grows, he finds more and more appreciation for the environment with which he is not in immediate contact. He gradually discovers space in its visual significance. Yet, it must be kept in mind that any reference or motivation in terms of visual experiences would greatly interfere with the child's expression at a time at which his needs point toward a subjective interpretation.

The child's imaginative activity is different from that of an adult. This can best be observed in the different types of playing. The child plays hide and seek with the same unawareness as he uses a pencil which he moves up and down while imitating the noise of an airplane. Quite obviously, his imagination transforms a pencil into an airplane. All children use their imagination in such an uninhibited way. If an adult would do the same he would be considered insane. For an adult, a pencil is a pencil and the pencil is for writing. The child's imaginative activity is unconscious. The adult in his play needs aims and rules. His imaginative activity in its effect is controlled. It is during the period of adolescence that the change takes place from an unconscious imaginative

activity to that of critical awareness. If this change comes suddenly—that is, if the child becomes suddenly critically aware of his "childish behavior reactions" or his "uncontrolled childish paintings," the usual result is a shock. As one of the consequences of this many children lose their confidence in their creative abilities and stop their work altogether. He "can't draw anything" because his sudden awareness realizes the "inefficient" childish approach. The drawing expression may seem "childish" and often "ridiculous" because of the sudden awakening of a more "mature" attitude.

If we can stimulate the child in his unaware production to such an extent that, in his unaware stages, he reaches a greater "Maturity" which will be able to stand the critical awareness which will set in we have kept the child from making a sudden change, and have protected him from disappointments.

In the classroom this is not at all difficult. It means simply making the child aware of his own achievements. "Johnny,

please turn to page 42

project in CELASTIC:

Continued from page 32

comprised of cellophane straws, metallic ribbon, wire scraps and similar inexpensive materials. Completed mask can be given protective coating of shellac, varnish or plastic spray.

MODELING PROCEDURE

Clayola was used to model a mask deep enough to support a deep headdress. (To extend the supply of clay, firm paper wads and large stones can be added to form the core of the clay model.)

When the mask was ready, its surface was covered with foil, previously dipped in parting agent, to expedite later removal. The surface protected, torn pieces of Celastic were then dipped in the softener and one layer applied over the tin foil. When this dried in place (about a half-hour), the mask was slit along the back, the clay removed, the incision repaired with a strip of Celastic, and the clay re-used for another project.

DECORATING THE MASK

Our paper pattern designs for hats and collars were cut from a sheet of Celastic and dipped in softener, then allowed to dry to a slight tackiness while hanging from the line. After a few minutes the material was ready to shape into the hats, collars and similar decorative features, and finally positioned to the mask and fastened. A few of the more elaborate pieces were helped to keep their shape during drying, with paper wad props.

The hat and collar parts were fastened to the mask with strips of softened Celastic. Celastic ribbons were draped and twisted, then the moist ends were pressed against the dry surface. All loose sections were stapled to the mask and further reinforced with strips of dipped Celastic.

PAINTING THE MASK

Since this was a new material and required exploratory techniques, we used a few scraps of dipped fabric for experimental coloring. It accepts crayon, water color, powder paints and temperas equally well. We decided to use Artista Tempera for our particular project. Several color roughs were made on paper and the most effective combinations then made up in large enough quantity to allow for possible retouching.

This proved a most exciting adventure. It is always that way when one tests a new, unknown quantity for creative art purposes. We enjoyed making these oversize masks in a versatile material which was strong, yet flexible. Our painting was done freely, using a wide range of bright colors, ideally suited to this medium's pliable surface. ▲

between historian and art practitioner comes to the fore when the subject of contemporary effort arises; historians tend to use the journalistic clichés—impressionism, expressionism, cubism, etc.—in a different manner than the art instructor believes them to mean.

In these survey classes, you will be faced with a great mixture of students, including those from other departments, who have chosen it as an elective; special students seeking to enrich their post-graduate existence, and those who find themselves there through the unpredictable oddities of registration. If you're fortunate, the majority of your students will be art majors. They bring a maximum of interest, though perhaps spotty backgrounds, to the course. If, as the instructor, you have considerable knowledge, be that much more careful to assume that the student has none and be explicit and inclusive in your lectures.

THE BUDGET PROBLEM

Due to the costliness and rarity of traveling exhibitions, the college instructor and his students are dependent upon trips to exhibits, illustrated publications and, of late, education films for outside inspiration and information. The art department usually subscribes to the publications, which can be borrowed. The task of showing the films and arranging suitable times with the visual aids department is imposed upon the young instructor, as is the arranging of junkets.

He will fare best in his career if he assumes that what he is teaching is only a beginning in art education for the students. Despite the differentiation between elementary and advanced courses, the instructor will find that his advanced classes hold many students, special and regular, unprepared for the task.

Modern art education, as part of a broad mass education, has not existed long enough to expect it to be what it should be, but since no alternative is possible, the instructor will have to adjust himself to the inevitability of the "unfinished" program.

Since you have qualified as a teacher, you probably know something of the influence of art education, whether as a department or as a national philosophy, on the immediate work at hand. Until you became an instructor, your primary concern was only with his own application and interest in the subject. Now you will have to deal with varying degrees of interest, from great enthusiasm to complete apathy on the part of your students.

In these matters, you can count on little help in the line of advice from your superiors, except insofar as disciplinary action may be concerned.

If new ideas in education or new stylistic experiments in the arts and crafts are to be tried out, the conduct of these experiments is usually carried on in classes where the young instructor has his duties.

Barely out of college yourself, you will find yourself in the position, if unofficially, of counseling students. It is easier for them to confide in young instructors because of the slight age difference, even though their official advisors may be older teachers.

As the colleges in which you might teach are scattered throughout the country, the work there can easily bear the

stamp of provincialism, which formerly had the character of certain local or regional coloring in subject matter and style. Of late, the provincial is only imitating the style of the big cities, and catching up with it as quickly as possible.

The strongest support, or bulwark, against the disadvantages of provincialism, as well as the scarcity of literary and visual material, would be for the instructor on the college level to have not only a master's degree, but also a year or two of travel and possible study in a professional art school—advantages that too many lack. The further education of himself will be up to the enterprise of the instructor, since the colleges that have graduated him have completed their work as far as he's concerned. Summers and leaves of absence can be used to good effect, and not necessarily as a time for merely adding formal or academic prestige to your name.

If you are a painter or a craftsman, your college will probably expect you to go on with this work, exhibiting it, and, if possible, obtaining favorable recognition for it. In some instances, you might have a feeling of pressure in this respect—that your own work, as well as that of your students is being rushed to exhibition prematurely, displaying a confusion of aims and inadequate results, just for the sake of regional or national prestige.

The sending of work to exhibitions, even within the limits of regional shows, entails expense and the instructor should be prepared for this. He will have to bear it personally. Only invited art work and that in a small handful of national exhibitions is transported at the expense of the exhibiting body itself.

Whatever these expenses and problems are, you will be expected to assume the burden of becoming a *distinguished* faculty member in the shortest practicable time! Independently, you might set yourself the aim of instruction that is mutually stimulating and rewarding, while privately maintaining standards for your own work less self-conscious than those you might be expected to observe for reasons of prestige.

TRAVELING APPRENTICESHIP DESIRABLE

In conclusion, it might well be said that if the young instructor were encouraged to teach at a number of different college art departments in the early years of his career, it would benefit him and the teaching of art at college level in general.

This would be a sort of journeymanship and would acquaint the novice with different problems and teaching programs. Unfortunately, he is not encouraged to do this and if, for any reasons other than promotion, he has moved about, his ability to hold a job may be in doubt.

The average department head is, of course, pleased to have a talented instructor and is loath to break up his "happy family" of teachers. It is also difficult as well as expensive for him to hire new people and so they naturally hesitate to part with a satisfactory or promising teacher.

There will be times when the instructor is chafed a bit by the demand for harmonious faculty relationship for, as an artist, he could easily be preoccupied with his own and very individual point of view—a view he doesn't care to jeopardize because his artistic personality demands that he adopt and maintain it. And, as has been said, it is demanded of him that he be an artist and produce.

While some department heads overemphasize harmony, it must be said that there is some justification for their attitude because they, as representatives of their departments, stand as the one responsible person in relation to the Dean and to the college.

The young instructor is faced with all these problems, some of which he will have suspected exists, for he himself is usually a product of the colleges. As to adjusting himself to other persons in a professional and social way, he may remember that this problem, at least, exists for almost all of humanity and is not peculiar to campus life. ▲



budget wise THEATRE SETS:*Continued from page 16*

discuss color schemes, then start to work—usually on the movable or plastic pieces first. We make paper mache objects* on a chicken wire base, covered with newspapers and paper hanger's wheat paste—rocks made from apple boxes covered with muslin, and stuffed with wadded newspapers, stapled together and painted with casein or resin emulsion paints or show card paints. If flats or backdrops are out of the question, plastic pieces can relieve the monotony of draperies and are inexpensive and easy to make.

Cut-outs are done on beaver board or thin wood, with a Cutawl, an electric machine which is safe and easy to use. The beaver board can be used over and over, recut and repainted.

Simple painting can be done by any youngster; for detail painting, more advanced students are chosen. Those who are more adept with hammer and nails are selected for carpenter work, and in our particular case we are fortunate in having a retired carpenter to help out, occasionally, with heavier, more complicated work. Some of the students work as helpers, mixing paint or cleaning brushes. There is no rivalry and everyone seems satisfied to do his part and takes the same satisfaction in completing the whole job.

Students soon learn that stylized scenery is more effective than realistic—the literal requires control of a professional stature—and go boldly ahead, learning from success and failures. They learn that crudeness and lack of details do not show under lighting, that everything must be exaggerated to carry to the farthest seats in the auditorium.

The designing and making of scenery provides many interesting problems, involving nearly all the arts and crafts. Any school group that does not plan and make its own scenery is missing a lot of fun. ▲

***EDITOR'S NOTE:** see article on "Celastic" for an exciting new substitute which may soon replace paper mache for all projects similar to those described above.

the story of AMERICAN GLASS:*Continued from page 39*

In our own time, off-hand work and glass-houses-of-all-work are almost extinct. In this age of specialization, each type of glass is made in its own factory, often its own company. Great progress has been made in the development of new functions for glass products which bear not the slightest resemblance to that transparent material usually associated with the word, glass.

However, such developments are beyond the scope of this story, which is simply an attempt to define the artistic and historical heritage from which the contemporary American glass industry grew. ▲

witch doctors in ART EDUCATION:*Continued from page 19*

The trouble is, abstraction is not the catch-all so many impotent artists would make it. True, it takes more than a bit of understanding to know good abstraction from trash, and criticism is always subject to opinion. What you think is good, I may think bad. But, basically, an abstraction is the taking of a common experience and reducing it to pure design. When an educator or artist has to read into such work complicated meaning, described in intricate jargon, he is doing a disservice to art.

Art, of course, is not simple. It is not merely a question of painting to please the eye and stir the emotion. Art takes education and some acquired understanding to be appreciated. Our tastes grow as we experience. Like any experience which is new, we must live with it awhile to determine its

quality. But—if those who expose us to new experiences pound us over the head with ultra-academic jargon, our interest wanes in proportion to the swell of the verbiage. For, this reason, I suggest that my fellow educators refrain from teaching anything whose true meaning they haven't grasped, and that they learn to *do* as well as theorize. There is another cliche: "*Those who can, do; those who cannot, teach.*" It need not be so. ▲

POSTERS:*Continued from page 36*

a poster should be evaluated on its color sense and size, etc. Accepting these limitations, however, these are the three I select:

1. J. Miller Brockmann's *Das Plakat*, made for the Zurich international poster exhibition, primarily for its experimental value. 2. The Doyle, Dane, Bernbach *Levi's Bread* piece, for its directness in communicating the sales message. 3. The Hiroshi Ohchi poster for a piano concert, which is a valid treatment for its clear-cut purpose. ▲

THE ETERNAL SOURCE:*Continued from page 11*

lief has proved true: human nature develops creatively, if it is not thwarted by violence, interference, and unconstructive criticism. We must regain this belief by helping our children to develop themselves, instead of forcing them into preconceived patterns foreign to their individual natures. ▲

**CREATIVE GROWTH:***Continued from page 40*

tell me, how did you achieve this stormy color?" Johnny may be completely unaware of his own achievements. However, by leading him to the discovery of his own achievements and by bringing them to his consciousness, we have helped him to move from a stage of accidental production to a stage of more conscious achievement. "Mary, tell me, what did you do to make your house look so distant?" A discussion with Mary will soon reveal to her in detail what she actually did, and thus raise her conscious level of her creative achievements. It is self-understood that such motivations to raise the child's conscious approach must never occur during the creative process. There they would greatly interfere with the intuitive character of his art. They must always be individual and occur afterwards.

From what has been said it becomes quite clear that, during his unaware stages, the more we prepare the child to develop creative freedom in using approaches in his art expression which can stand the stages of critical awareness, the smoother will be his growth into the stages of adulthood. The undecided period, however, in which the individual feels grown out of childhood and not yet ready for critical awareness is characteristic of students of the junior high school level. It is during this period that we must most carefully use the child's own standards for gradually leading him to the realm of greater awareness. We can easily do this by making him discover his own achievements. ▲

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